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The Role of Affect in Regulating the Influence of Belief Superiority on Open-Minded Cognition and Information Selection Bias

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THE ROLE OF AFFECT IN REGULATING THE INFLUENCE OF BELIEF SUPERIORITY ON OPEN-MINDED COGNITION AND INFORMATION SELECTION BIAS

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ABSTRACT

Previous studies show that people high in belief superiority tend to hold higher attitude confidence and certainty, increasing information selection bias. However, it remained unclear why and when such an effect occurred. Two studies were conducted to address these questions. Study 1 aimed to examine the effect of belief superiority on information selection bias and its potential mediator: situation-specific open-minded cognition (SOMC). In line with the logic of *earned dogmatism hypothesis*, I posit that belief superiority induces a sense of entitlement to be close-minded, consequently leading to information selection bias.

In study 2, I examined the role of affect (happy/sad) in facilitating or inhibiting the effect of belief superiority on SOMC and information selection bias. Grounded in the *affect-as-cognitive-feedback account*, it is theorized the role of affect in cognition is flexible, providing value to the dominant cognition. Accordingly, I predicted that within the happy mood conditions, high belief superiority will lead to lower SOMC than low belief superiority and within the sad mood conditions, high belief superiority will lead to higher SOMC than low belief superiority. In a similar vein, it was predicted that within the happy mood conditions, high belief superiority will lead to higher information selection bias than low belief superiority and within the sad mood conditions, high belief superiority will lead to lower information selection bias than low belief superiority. Furthermore, study 2 was also expected to produce a moderated mediation effect: SOMC will mediate the influence belief superiority's effect on information selection bias, and

this mediation effect will be moderated by affect. An online experiment was conducted to test study 1' hypothesis by employing 246 US student participants. Consistent with the hypothesis, I found that belief superiority increased information selection bias, and SOMC mediated the effect. Study 2 was conducted in the lab with 284 Loyola students as participants. Findings from this study showed that most of hypotheses were supported, except for the hypothesis regarding the moderated mediation effect of SOMC. This research enhances our understanding of how belief superiority contributes to information selection bias, through SOMC as a mediating factor. Importantly, it demonstrates that affect can moderate such effects, extending previous studies on affect and cognition and favoring the idea that the influence of affect on cognition is flexible rather than straightforward.

CHAPTER ONE

INTRODUCTION AND LITERATURE REVIEW

Democracy guarantees individuals freedom of thought, belief, and political opinion. This aspect of democracy makes political disagreements inevitable. When respectful political communications are involved, political disagreements are potentially healthy because it provides various viewpoints, which can produce better solutions for the common interest (Gutmann & Thompson, 2002; Price, Cappella, & Nir, 2002). However, the reality is rarely close to the ideal. In today's world, where affective polarization becomes more pronounced (Iyengar et al., 2019), navigating political disagreements become more challenging (Dias & Lelkes, 2021). Instead of promoting constructive political discussions, political disagreements often cause individuals to avoid attitude-inconsistent information, which could result in attitude polarization.

One of the similar patterns in polarized democracies is that people from different political spectrums feel that their political beliefs are superior, making them criticize one another (e.g., Toner, Leary, Asher, & Jongman-Sereno, 2013). When individuals express a belief superiority, they believe that their view is better or more correct than other viewpoints (Toner et al., 2013; Hall & Raimi, 2018) and thus tend to hold higher confidence and certainty in their attitude (Hall & Raimi, 2018). Belief superiority influences the ways in which individuals process information and interact with others. For example, previous studies have demonstrated that belief superiority

increases the likelihood of seeking information that is congenial to their beliefs (Hart et al., 2009) derogating strangers with opposing political views (Raimi & Leary, 2014), and engaging in conversations to profess their viewpoints rather than listen (Maki & Raimi, 2017). Previous studies have shown that belief superiority might happen on any political spectrum, consistent with the ideological extremity hypothesis. For example, previous studies show that political extremists of liberal or conservative ideology equally believe that their political position is superior or more correct than another's, and selectively expose themselves to pro-attitude information (Toner et al., 2013; Harris & Van Bavel, 2021).

Although previous studies have attempted to understand the consequence of belief superiority on information processing and social interactions, no prior studies have investigated the possible psychological mechanisms that can explain such consequences. The present study aims to fill the gap in the literature by investigating the mediating role of situation-specific open-minded cognition in explaining the influence of belief superiority on information selection bias. Open-minded cognition is a cognitive style marked by a willingness to consider multiple perspectives (Price, Ottati, Wilson, & Kim, 2015). According to the earned-dogmatism hypothesis, individuals who perceive themselves as experts on an issue tend to be less open-minded (dogmatic) because they feel normatively entitled to do so (Ottati, Price, Wilson, & Sumaktoyo, 2015). On the other hand, novices on a particular issue are normatively guided to be more open-minded because they have limited knowledge. Extending this logic, people high in belief superiority are expected to be low in open-minded cognition, similar to those high in perceived self-expertise. Those who perceive their belief as superior believe that their viewpoint is more correct than other viewpoints. In this situation, dogmatism is deemed appropriate. Such

dogmatic thinking will then be manifested in information selection bias. On the other hand, low belief superiority would lead to higher open-minded cognition, reducing information selection bias.

Further, given the effect of belief superiority on congeniality bias, finding ways to reduce such a consequence is crucial for constructive political discourse. The present study seeks to examine the role of affect in facilitating or inhibiting the effect of belief superiority on open-minded cognition and information selection bias. Traditionally, emotion and cognition have been viewed separately and have a competing effect influencing information processing, judgment, and decision-making. However, recent evidence uniformly indicates that affect and cognition are closely related. For example, studies show that moods influence attention to visual stimuli (e.g., Gasper, 2004; see Todd, Cunningham, Anderson, & Thompson, 2012 for a review), the degree to which individuals engage in self-focus (e.g., Wood, Saltzberg, Goldsamt, 1990), and breadth of attention (e.g., Gable & Harmon-Jones, 2008).

One of the main accounts regarding the role of affect on cognition is the affect-as-cognitive feedback account (Huntsinger, Isbell & Clore, 2014). This account argues that positive and negative affect serves as feedback about the appropriateness of one's current mental state. While positive affect gives a green light, negative affect gives a red light to the accessible cognitive tendency. Built on this account, I argue that the influence of belief superiority on open-minded cognition and information selection bias will be moderated by affect. Before specifically outlining the hypotheses and study designs, I review the existing literature on information selection, belief superiority, and open-minded cognition in the following section. I will also

provide an overview of theories regarding affect and cognition and how affect may moderate the effects of belief superiority on open-minded cognition and information selection.

Motivational Account of Information Selection

With technological advancement, we live in an age of unprecedented access to information. Most people argue that the information age benefits our understanding of environments, which is expected to help us make better decisions. This belief might be true when we assume that people can rationally process all available information (Ettenson & Shanteau, 1987; Klein & O'Brien, 2018). However, the fact is that individuals are not always motivated nor able to process all information (Petty & Cacioppo, 1986), and it is not adaptive to do so (Miller, Maruyama, Beaber, & Valone, 1976). In other words, although a large amount of information is available and has become more accessible, it is impossible to process all of it. Unfortunately, people tend to underestimate their own bias even if they are aware of their tendency to be biased (Pronin, Lin, & Ross, 2002; Hansen et al., 2014) and maintain such an "illusion of objectivity" (Pyszczynski & Greenberg, 1987). Research demonstrates that people have a tendency to expose themselves to information that can support their stand point rather than oppose it (Festinger, 1957; Jonas, Schulz-Hardt, Frey, & Thelen, 2001; Smith et al., 2008). When individuals decide to observe attitude-consistent information, they engage in selective information search, known as selective exposure or congeniality bias, or confirmation bias. The question then arises: why do people engage in such a bias?

One main account that can be used to understand engagement in information selection bias is the motivational account. This account is account in prior research on motivated reasoning has shown that motivation affects the process of reasoning (Kunda, 1990). For

example, previous studies have examined the influence of motivation on attribution (Pyszczynski & Greenberg, 1987), perceptions (Erderlyi, 1974), and attitudes (Festinger, 1957). This line of work generally suggests that individuals' motives, such as wish, desire, or preference about the outcome of a given task, affect the process of reasoning: explain one's and other's behavior, forming perception, determine one's belief or attitude, and evaluating evidence (Kunda, 1990). Such an effect is attributed to the fact that individuals' reasoning rely on their cognitions, and motivations play an important role in determining which of these will be utilized in a certain situation (Ditto & Lopez, 1992; Kunda, 1990).

Two main motivations that have been examined in understanding the influence of motivation on information selection are defense motivation and accuracy motivation (Fischer & Greitmeyer, 2010; Hart, 2009; Fischer, 2011). *Defense motivation* is a desire to hold attitudes and beliefs that are consistent with one's perceived interest or one's current self-defining beliefs (Chaiken et al., 1996). Self-defining beliefs may include beliefs that are strongly attached to self, such as one's values, social identities, or personal attributes (Chen, Duckworth, & Chaiken, 1999). For example, defense motivation may come into play on issues like abortions, affirmative action, and universal basic income, given the profound consequences of these issues on one's ideological values. Individuals are driven to defend these beliefs because they are central aspects of their self-concept (Giner-Sorolla & Chaiken, 1997). Furthermore, individuals may have developed a strong attachment or ownership to them (Hart et al., 2009). Analogous to physical material possessions, a strong attachment to an attitude or belief can result in the sense of ownership (Abelson, 1988). For example, once individuals possess a belief, like physical materials, they will protect it, display it, and not give it up unless it has no value anymore.

Earlier studies, which were mostly conducted in lab settings, have shown that whenever individuals are reminded about their attitude (Brodbeck, 1956; Frey, 1981), belief (Adams & Adams, 1961), and prior decision (Frey & Rosch, 1984; Jonas et al., 2001) on a topic , they are more likely to engage in congeniality bias: select aggregable information and avoid disagreeable information. These studies generally suggest that once one's defense motivation is activated, individuals' tendency to select attitude-consistent information over attitude-inconsistent information will also increase.

The defense motivation role in information selection bias can be explained through the lense of *Cognitive Dissonance Theory*. This theory posits that elements of cognition can exist in the state of consistency or inconsistency with each other (Festinger, 1957). When these elements are consistent, they are consonant. When they are not consistent, they are dissonant. Once individuals commit to a certain attitude or belief, they are motivated to add new consonant information in order to defend these stances (see Hart et al., 2009, for a review). Otherwise, they may experience cognitive dissonance, resulting in negative arousal or psychological discomfort. These conditions, coupled with the fear of appearing foolish if one were to behave inconsistently, motivate individuals to reduces cognitive dissonance (Kunda, 1990).

Some studies have directly examined the influence of cognitive dissonance on selective exposure. For example, a study by Cotton and Hieser (1980) tested the influence of cognitive dissonance on information selection on the issue of nuclear energy. They manipulated dissonance by having participants write a counter-attitudinal essay about nuclear power under low-choice or high-choice conditions. Participants in the low choice condition were required to write the essay as instructed to be in the high dissonance condition. Participants in the high-

choice condition were instructed to write the same essay but were told they had the freedom to write whatever they wanted. This manipulation is to inflict cognitive dissonance. The results showed that high-choice participants tended to avoid dissonant information and seek out consonant information more than low-choice participants. The findings were observed in terms of pamphlet and discussion group selections.

Studies in the political context have also indicated people are more likely to select information that features their preferred party under a dissonance condition (Atkin, 1971; Stroud, 2008; Chaffee et al., 2001; Knobloch-Westerwick, Meng, 2009). In a recent survey, Song, Yao, & Wen (2021) also found that perceived threat pertaining to COVID-19 arising from news was positively associated with a negative arousal (anxiety) and cognitive dissonance. These conditions resulted in a greater likelihood of avoiding dissonant information related to relevant precautious behaviors. Other lines of research showed that impact of cognitive dissonance on biased selective exposure is more likely to occur at a moderate level of dissonance, diminishing as dissonance increases (Smith, Fabrigar, & Norris, 2008). When arousal is too high, it becomes more reasonable to seek out dissonant information and use it for attitude change.

Although the cognitive dissonance explanation has received much support, some studies provide contradicting evidence. For instance, a U.S survey experiment investigated whether participants will have higher cognitive dissonance and selective exposure when exposed to attitude-consistent news than attitude-inconsistent or balanced news (Metzger, Hartsell, & Flanagin, 2020). Cognitive dissonance was measured using a nine 5-point Likert scale items, including its cognitive and affective dimensions (e.g., “This story made me question my own beliefs about the issue”, “This news source makes me uncomfortable”). Selective exposure

gauged the likelihood of using a news source again in the future. The results revealed that exposure to attitude-inconsistent information induced more cognitive dissonance than attitude-consistent and balanced information, aligning with cognitive dissonance theory predictions. Additionally, balanced information generated more cognitive dissonance than attitude-consistent information. As anticipated, participants were more likely to return to attitude-consistent information than attitude-inconsistent information.

However, importantly, no significant difference in selective exposure emerged between participants exposed to attitude-consistent and balanced information. The authors posit that if cognitive dissonance is the motivating force of selective exposure, participants would prefer attitude-consistent information over balanced information due to its lower cognitive dissonance. Contrary to the theory, this study reveals that information credibility plays a more important role. Participants rated attitude inconsistent information less credible than attitude consistent information, while rating attitude-consistent and balanced information equally credible. This pattern of credibility evaluation is consistent with the selective exposure tendencies mentioned earlier. This research provides some evidence to the relative importance of information credibility over cognitive dissonance, which is pertinent to the next discussion on the second motivation- accuracy motivation.

Accuracy motivation refers to the desire to make the best decision for the current goal (Jonas, Schulz-Hardt, & Frey, 2005). In contrast to defense motivation, accuracy motivation should promote a greater willingness to find relevant information before making a judgment and decision, regardless of whether the information is attitude-consistent or inconsistent. In other words, it is assumed that people are rational information processors. Accuracy-motivated people

will process information independently of their prior beliefs because they are motivated to achieve an accurate conclusion (Ripberger et al., 2017; Li, Johnson, & Zaval, 2011). While defense motivation increases when the information is relevant to one's value, accuracy motivation increases when information is relevant to important personal outcomes (Jonas & Frey, 2003; Fischer et al., 2008).

The influence of accuracy motivation on information selection has received considerable support. For example, in one study, participants who played the role of an advisor, a person who made a recommendation to a client for a financial reward, showed a more balanced information search than those who played the role of personal decision-makers who made a decision for themselves (Jonas, Schulz-Hardt, & Frey, 2003). Accuracy motivation increases the likelihood of processing information in a more balanced manner. Similarly, French et al. (2006) found that threat, which was manipulated by the personal vulnerability of getting a severe disease, increased the amount of information that participants requested, especially information about controlling the disease. In this sense, disease related threat produces accuracy motivation. Other research showed that the influence of threat on accuracy motivation varied in terms of the need for cognition (Ruieter et al., 2004) and collectivism-individualism (Kastenmuller et al., 2010).

Despite its considerable support, a recent work suggests that the influence of accuracy motivation on information selection bias is more dynamic than initially thought. As Fischer and Greitemeyer (2011) proposed in their integrative model, the effect of accuracy motivation on information selection bias is better explained by decision certainty, which may vary depending on the accuracy cue and when it is provided. They argue that while the effect of defensive confidence exclusively increases selective exposure, the effect of accuracy motivation may

increase or decrease it. In a study, Fischer, Jonas, Frey, and Kastenmuller (2008) asked participants to read investment scenario and choose which strategy they think an investor should take. The strategy was gained-framed for half of the participants, and it was loss-framed for the others. Subsequently, participants indicated their pre-liminary decision and were given additional information to re-evaluate their initial decision. They were then asked to choose which additional information they would like to choose. The finding showed that information selection bias was higher when decision is a gain-framed rather than a loss framed. The authors found that the effect of decision framing on information selection bias was mediated by decision certainty. Specifically, it demonstrated that that participants in the gain-framed decision experienced higher decision certainty than those in the loss-framed decision condition, making them more biased in information selection..

In another study, Fischer, Schulz-Hard, and Frey (2008) examined the effect of accuracy cue on selective exposure by giving participants an accuracy cue related to the information search task. After reading a vignette about a personnel decision case, participants were asked to report their pre-liminary decision whether a manager should continue the contract with an employee or not. Subsequently, participants selected 2 from 10 pieces of information that they could use to re-evaluate their pre-liminary decision. This information consisted of decision-consistent and decision-inconsistent information. To examine the impact of information search-related accuracy cue, some participants were told to choose best information, while the other participants receive no further instruction. The findings revealed that participants in the accuracy-instruction exhibited greater information selection bias than those in control group. One of the explanations to this finding is that an accuracy cue increases one’s cognitive analysis,

which then increases subjective evaluation that one has involved in a thoughtful decision making. It then increases decision certainty, and consequently amplifies information selection bias (Fishcher, 2011).

Taken together, the integrative model of selective exposure suggests the important role of decision certainty. The idea is that when individuals have been certain about their viewpoint, as typically found in the context of attitude-relevant information processing, they will be more likely to engage in information selection bias. Why does certainty play an important role? It is because people use a cost-benefit calculation to determine the degree to which they would process information (Kunda, 1990; Fischer, 2011). If the information search is costly, cognitive effort may surpass its utility (Stigler, 1961). Therefore, if people are confident that their choice is accurate, they will save energy in processing dissonant information and prefer consonant information (Fischer, 2011). Previous studies have indeed shown that attitude-inconsistent information needs more cognitive resources to process because they have not been available in the existing cognitive system (Kunda, 1990; Schulz-Hardt et al., 2010).

Belief Superiority

Belief superiority is *"an individual's conviction that his or her beliefs or attitudes are better or more correct than other possible viewpoints"* (Toner et al., 2013, p. 2454). In this sense, belief superiority is egocentric self-knowledge about certain issues arising from social comparisons. It means that people high in belief superiority not only pose a high self-regard but also perceive their belief as superior to others. Individuals may perceive they are an expert on a certain topic, but they may not think their viewpoints are superior to other possible viewpoints. This definition distinguishes belief superiority from other related constructs, as discussed below.

First, belief superiority is distinct from perceived expertise. Although these two constructs involve the perception that one is more knowledgeable, perceived self-expertise typically concerns a domain (e.g., politics). Meanwhile, belief superiority typically focuses on specific issues. Issues are particular concerns within a domain, whereas a domain is broader than issues. For example, previous studies have investigated perceived self-expertise in the domain of politics (Ottati et al., 2018), finance (e.g., Atir, Rosenzweig, & Dunning, 2015), and education (Trafimow & Sniezek, 1994). Belief superiority has been investigated in the issue of climate change, an issue within the environmental domain (Raimi & Leary, 2014; Maki & Raimi, 2017; O'Dea, Bueno, & Saucier, 2018). Some studies have also investigated specific issues like universal basic income and gun control, which are under the political domain (e.g., Toner et al., 2013; Harris & Van Bavel, 2021; Hall & Raimi, 2018). Importantly, perceived self-expertise does not necessarily lead to belief superiority. People who perceive themselves as experts in a domain believe they have more knowledge in that domain. However, they may not think their viewpoints in that domain are superior. On the other hand, novices might perceive their stance as superior to alternative views. In other words, experts might not feel superior in some situations, while novices might feel superior (naïve superiority). A study has indicated that people with high belief superiority have the highest gaps between their perceived and actual knowledge (Hall & Raimi, 2018).

Belief superiority is also distinct from but correlated with attitude certainty. Attitude certainty refers to confidence that one's attitude toward an object is correct (Krosnick & Schuman, 1988). Therefore, belief superiority is closely related to attitude certainty because they are both concerned with the sense of correctness. The difference is that attitude certainty does not

involve a comparative conclusion. People might be certain about their attitude on a specific issue because they believe that this attitude is the correct one. However, they may not see it as superior to other alternatives. Conversely, people might be uncertain about an attitude or belief, but they may feel that their attitude or belief in a certain area is superior to others' viewpoints. For example, scholars on the terrorism issue may feel that their views of economic intervention in solving terrorism issues are superior to all other alternative viewpoints. However, they may not feel certain that their perspective on this complicated issue is the most correct.

Third, belief superiority is distinct from moral conviction. A belief superiority assertion involves a sense of correctness about one's belief, which could be shaped by moral or non-moral considerations, such as factual considerations, education, or social exposure (Hall & Raimi, 2018). In contrast, moral conviction is based on moral mandates, indicating that a moral-based attitude is an absolute truth that should be applied universally regardless of the context (Skitka, Washburn, & Carsel, 2015; Skitka & Morgan, 2014). Non-moral conviction is likely to derive from social consensus (many people are against it; therefore, it must be a correct viewpoint). In contrast, moral-based convictions stem from moral commitment- a moral belief is an absolute good.

The formation of belief superiority is linked to the self-enhancement motive (Leary & Toner, 2012). This motive predicts that people evaluate themselves biasedly because we encounter and interpret the world in ways that can highlight our positive attributes better than our limitations (Strube, 2012). Previous studies have shown that people overestimate their positive characteristics as compared with others (Alicke & Govorun, 2005), maintain favorable self-views, and avoid negative emotions, such as anxiety, guilt, and discomfort (Alicke & Sedikides,

2009). The self-enhancement motive is shaped by psychological interests, such as security/love, social status, skills, and capacities (Alicke & Sedikides, 2009).

In a related vein, belief superiority may also stem from peoples' tendency to see themselves as better than average (Hoorens, 1993). The idea is that individuals are not only motivated to develop and maintain their positive self-evaluation but also to see themselves as better than their average peers (Zell, Sedikides, Strickhouser, & Alicke, 2020). A study shows that people are more likely to evaluate themselves better than average after experiencing a threat to their feelings of self-worth (Brown, 2012). Similarly, studies have also shown that people tend to emphasize their positive traits after interacting with someone who has a negative view of them (Baumeister & Jones, 1978), and their strength in social skills after a failure (Brown & Smart, 1991). One key explanation of this finding is provided by self-verification theory, which suggests that feedback that challenges positive (or negative) self-views will promote compensatory efforts to reaffirm the self-view (Swann & Brooks, 2012). This compensatory strategy is driven by people's need for coherence and stable self-views.

Belief superiority is also related to ideological extremity. Studies show a quadratic relationship between belief superiority and political ideology in the U.S rather than a linear relationship (Toner et al., 2013; Harris et al., 2021). These studies specifically demonstrate that more extreme attitudes on liberal or conservative issues are associated with greater belief superiority. One study shows that people who hold an extreme belief regarding global warming, either those who strongly believe that it is a real danger or who strongly believe it is not happening, are the most certain that their belief could not change (Myers, Maibach, Roser-Renouf , 2009). In contrast, those with a moderate belief indicate some likelihood of switching.

However, the studies in this area employed a correlational design, which prevents a causality inference.

Dogmatism is another related construct that has been found to be associated with the belief superiority. Dogmatism is defined as total systems of beliefs and disbeliefs which are closed or resist change (Rokeach & Fruchter, 1956). Dogmatism is rooted in individual differences, like right-wing authoritarianism, fascism, and social dominance (Altemeyer, 1998; Duckitt, 2009). Therefore, dogmatism can be considered a personality variable. Studies demonstrate that dogmatism is associated with higher perceived belief superiority for nine measured political attitudes, such as health care, abortion, and illegal immigration (Toner et al., 2013; Harris et al., 2021; Raimi & Leary, 2014). These studies also show that dogmatism can strengthen the influence of political attitudes and extremity on belief superiority (Toner et al., 2013; Harris et al., 2021).

The next question is, what are the consequences of belief superiority? Previous studies show that people high in belief superiority tend to possess high levels of attitude certainty (Hall & Raimi, 2018, study 1a), be low in intellectual humility (Leary et al., 2017), have negative responses to relationship conflicts (Raimi & Jongman-Sereno, 2019), derogate strangers who pose opposing political attitudes (Raimi & Leary, 2014), dominate the conversation of environmental issues rather than listen (Maki & Raimi, 2017), and select more agreeable and less disagreeable information (Hall & Raimi, 2018, Study 3).

However, few studies have experimentally investigated the consequences of belief superiority. Initial evidence can be seen in an experimental study by Hall & Raimi (2018), which successfully manipulated low-belief superiority but not high-belief superiority. They found that

low belief superiority reduced the congeniality bias in information selection (i.e., the difference between the number of agreeable and disagreeable headlines chosen). The present study will extend previous studies by experimentally testing the effect of belief superiority on information selection and by examining a potential mediator of this effect: open-minded cognition. I argue that high belief superiority causes people to be less willing to process information in an open-minded manner, leading them to engage in information selection bias.

Open-Minded Cognition

Open-minded cognition is a cognitive style ranging from close-mindedness to open-mindedness. When people process information in a one-sided manner, that is, in line with prior attitudes, they are exhibiting a close-minded cognition. Close-minded cognition is characterized by an overt confirmatory bias. That is a tendency to encode selectively, elaborate upon, or retrieve information in a manner that reinforces the individual's prior expectation or opinion (e.g., Eagly, Chen, Chaiken, & Shaw-Barnes, 1999; Kruglanski & Chun, 2008; Nickerson, 1998). On the other side of the continuum is open-minded cognition. This cognitive style is marked by a willingness to consider multiple intellectual perspectives, attitudes, or opinions-even those that contradict the individual's prior belief (Price et al., 2015; Ottati & Wilson, 2018).

Open-minded cognition is distinct from other closely similar constructs, like actively open-minded cognition and intellectual humility. Actively open-minded cognition involves the tendency to evaluate arguments and evidence, accompanied by an active effort to prevent biased thinking toward one's prior attitude, for example, by actively seeking and considering counter-attitudinal messages (Baron, 1993; Stanovich & West, 1997; Stenhouse et al., 2018). Intellectual humility is defined as "the recognition that one's beliefs are fallible, accompanied by an

appropriate attentiveness to limitations in the evidentiary basis of that belief and to one's limitations in obtaining and evaluating relevant information" (Leary et al., 2017). This later definition suggests that open-minded cognition is one of the components of intellectual humility.

Open-minded cognition has general and situation-specific components (Ottati, 2018). Individuals may possess general open-minded cognition that influences the degree to which they process information in a biased or unbiased manner across situations. Individuals may also process information unbiasedly in one situation but not in other situations. According to the Flexible Merit Standard Model (Ottati et al., 2015), open-minded cognition varies across situations because open-minded cognition is not always desirable. In some situations, open-minded cognition is virtuous, and thus open-minded cognitive processing is desirable (Ottati et al., 2015). For example, it is appropriate to be open-minded to a reasonably-expressed position that advocates a new mental health care system. However, open-minded cognition is sometimes not virtuous; thus, close-mindedness is desirable. For example, being open-minded to speeches that promote racial discrimination is not desirable because it is normatively inappropriate. In this situation, a normatively appropriate response may be to refuse to consider such a viewpoint openly. The present study will focus on situation-specific open-minded cognition in the context of politics. As discussed in the method session, the present study will focus on open-mindedness toward the issue of universal basic income in a given situation.

Previous studies have investigated various antecedents of open-minded cognition. In an experiment, Wilson et al. (2016) investigated the influence of perceived appropriateness on preference for open-minded cognition. They found that the preference for a target person who exhibited open-minded responses was higher when exposed to an equality-promoting message

than an inequality-promoting message. This finding supports Situational Merit Standard Hypothesis, which presupposes that social norms dictate in which circumstances open-minded cognition is appropriate or less appropriate. In this sense, participants rely on socially shared normative values, which suggest that an open-minded response to equality-promoting is appropriate.

Moreover, Wilson et al.'s study also attempted to test the influence of attitude conviction on open-minded cognition. According to the attitude justification hypothesis, people may also rely upon their attitudinal convictions when assessing the normative appropriateness of open-minded cognition. Consistent with this hypothesis, this study found that the preference for an open-mindedness response to the equality-promoting condition was higher than in the inequality promoting condition among Liberal participants. A similar finding was found among Conservative participants, but the preference difference was smaller than among Liberal participants. This research indicates that individuals inflate the normative appropriateness of open-mindedness when it reinforces their convictions but devalue the normative appropriateness of open-mindedness when it potentially attenuates their ideological convictions. In contrast, individuals will exaggerate the normative prohibition of close-mindedness when it threatens their convictions but minimize it when it reinforces their convictions.

The degree to which open-mindedness is perceived to be appropriate is also influenced by perceived self-expertise. According to the Earned Dogmatism Hypothesis, experts tend to be more dogmatic because social norms entitle experts to adopt a more dogmatic orientation. Experts earn the privilege to be more dogmatic, presumably because they have extensively thought about issues within a domain. (Ottati, Price, Wilson, & Sumaktoyo, 2015; Ottati et al.,

2018). In contrast, social norms dictate that novices should be more open-minded. This hypothesis is built on the Flexible Standard Merity Model (Ottati 2015), which argues that open-minded cognition may vary across situations. In this case, individuals might be open or refuse to consider multiple perspectives depending on their social roles in a specific-situation, whether an expert or novice. This hypothesis is also in line with the role theory, which suggests that distinct roles have distinct social norms within a social situation (Triandis, 1980). Like social norms, roles are concerned with correct or appropriate behavior. The difference is that roles are specifically concerned with proper behavior for persons in a particular position in a group, society, or social system (Triandis, 1980).

The Earned Dogmatism Hypothesis focuses on situational variations in the self-perception of expertise rather than actual expertise. While actual expertise is closely related to actual knowledge, education, experiences, or competencies, perceived self-expertise may or may not be associated with these sources (Fisher & Keil, 2016). A knowledge quiz typically measures actual expertise, whereas perceived self-expertise is usually measured by a question of how knowledgeable participants would say they are about a specific issue (e.g., Atir, Rosenzweig, & Dunning, 2015) or by giving participants false feedback (e.g., Ottati et al., 2015). Therefore, actual expertise better explains the actual knowledge or competence than perceived self-expertise. Research indicates that experts or novices may make errors in evaluating their expertise (Fisher & Keil, 2016). In addition to open-minded cognition, self-perceived expertise has also been demonstrated to predict claims of non-existent knowledge (Atir et al., 2015) and the illusion of understanding (Fisher & Keil, 2016).

The Effects of Belief Superiority and Situation Specific Open-Minded Cognition on Information Selection Bias

The present study is interested in understanding the influence of belief superiority on open-minded cognition and information selection. As described above, previous studies suggest that belief superiority predicts cognitive biases, like the tendency to select pro-attitude information. The present study aims to experimentally examine the effect of belief superiority on information selection, and to examine if this effect arises because belief superiority decreases the willingness to consider multiple perspectives unbiasedly in a specific situation. In this section, I will discuss how belief superiority may influence information selection, and how situation-specific open-minded cognition may mediate the relationship.

The relationship between belief superiority and information selection has been demonstrated in an experimental study by Hall and Raimi (2018). The study shows that people high in belief superiority tend to select more agreeable than disagreeable information. Selecting agreeable information helps people to maintain their belief superiority and is related to defensive motivation (Hart et al., 2009). According to cognitive dissonance theory, people committed to an attitude, belief, or decision will gather supportive information and ignore the unsupportive one (Hall, 2009; Festinger, 1964). Disagreeable messages cause individuals to experience an aversive state of arousal known as cognitive dissonance. Cognitive dissonance signals that something is wrong with one's belief, and thus it should be fixed (Festinger, 1962). Those high in belief superiority would be more likely to avoid such a situation because they believe their belief is more correct than the alternatives. When they encounter disagreeable messages, they will face

the potential threat of being unable to counter the messages that potentially undermine their belief. Selecting such information will be costly and make them vulnerable.

A motivational account of information selection can provide another useful explanation to understand the influence of belief superiority on information selection bias. As discussed in the previous section, defense motivation increases once individuals are committed to an attitude or a belief. Such a commitment will then drive individuals to search consonant information to avoid psychological discomforts due to dissonance information, and to protect their self-concept and value-based possession. Likewise, using the integrative model of selective exposure, it will be reasonable to argue that belief superiority increases information selection bias because such a sense of superiority involves certainty. Previous studies have shown that belief superiority is correlated with attitude certainty (Hall & Raimi, 2018), and attitude certainty fosters attitude-consistent information selection (Knobloch-Westerwick & Meng, 2009), especially when the information was more familiar (Sawicki et al., 2011 study 2).

However, an alternative hypothesis might also be tenable. That is, belief superiority might lead individuals to seek more disagreeable messages. The basic idea is that those with high belief superiority are likely to feel confident about their beliefs. In such a condition, they will also be convinced that they have the cognitive resources to defend their beliefs when encountering disagreeable messages (Albarracin & Mitchell, 2004). To amplify the belief of superiority, individuals should "step out" from their chamber and encounter competing alternatives. The confident feeling will give assurance for individuals to counter-argue disagreeable information. Indeed, studies have provided evidence that defensive confidence will

decrease preference for agreeable messages, and increase reception of disagreeable messages (Albarracin & Mitchell, 2004; Albarracin, Wang, & Albarracin, 2012).

Although this alternative “defensive confidence” hypothesis is possible, the former explanation seems more accurate. The main reason is that belief superiority is not always accompanied by defensive confidence. Defensive confidence refers to the confidence that one's attitude will survive future challenges (Albarracin et al., 2012). In this sense, defensive confidence focuses on confidence in being able to challenge others' viewpoints. Under a high defensive confidence condition, individuals believe they can handle the challenges but may not feel superior about their viewpoints. For example, individuals supporting universal basic income might feel confident in defending their belief, but they may not think it is a superior program to other alternative viewpoints. When the feeling of superiority is absent, individuals might be more open to disagreeable messages. Research has provided some initial evidence that supports this notion. Hall and Raimi (2018) find that belief confidence predicts defensive confidence but not belief superiority. Similarly, Maki and Raimi (2017) show that although people high in belief superiority are willing to engage in a discussion, they are likely to get frustrated and tend to dominate the conversations. It indicates that those high in belief superiority have limited confidence in defending their belief. Taken together, these studies suggest that belief superiority will be more likely to increase congeniality bias, the tendency to select aggregable rather than disagreeable information.

Situation Specific Open-Minded Cognition as a Mediator

Prior research has investigated the impact of belief superiority on information selection, but relatively little is currently known about how the effect works. The present research provides

an investigation on how belief superiority increases information selection bias, by examining situation-specific open-minded cognition as a mediator. This idea is built on previous studies, which have indicated that belief superiority is related to open-minded cognition, and open-minded cognition influences the way individuals process information. This section will discuss the research on these areas.

Belief Superiority and Situation-Specific Open Minded Cognition

The Earned Dogmatism Hypothesis offers a useful way of linking belief superiority and open-minded cognition. According to this hypothesis, individuals who perceive themselves as high in expertise will adopt a less open-minded cognition orientation because social norms entitle experts to be closed-minded (Ottati et al., 2015; Ottati et al., 2018). Extending this logic, a similar pattern is expected to appear in the context of belief superiority and open-minded cognition. The reason is that belief superiority and perceived self-expertise pose similar characteristics.

First, people with a high belief superiority and perceived self-expertise have a subjective evaluation of the degree to which individuals feel knowledgeable (Harris & Van Bavel, 2021; Raimi & Leary, 2014; Toner et al., 2013). This similarity can be seen in how previous studies manipulated these two constructs. That is by providing false feedback regarding one's knowledge or correctness of a topic (Ottati et al., 2015; Hall & Raimi, 2018). Second, belief superiority and perceived self-expertise predict greater perceived own-knowledge on particular issues (Hall & Raimi, 2018; Fisher & Keil, 2016). Third, both these constructs predict a greater conviction. Belief superiority has been demonstrated to predict attitude certainty (Hall & Raimi, 2018), perceived self-expertise predicts overconfidence in explaining an issue (Fisher & Keil, 2016),

and normative entitlement (Ottati et al., 2015). Built on these similarities, it is reasonable to argue that those high in belief superiority will be less open-minded because they tend to think their viewpoint is superior to or more correct than alternative viewpoints. They earn the privilege of being close-minded.

Suppose belief superiority is similar to perceived self-expertise. Why is it then necessary to investigate the influence of belief superiority on open-minded cognition while previous studies have shown that perceived-self expertise indeed influences open-minded cognition? As discussed in the previous section, it is important to note that belief superiority is not exactly identical to perceived self-expertise. Individuals may not perceive themselves as experts on a particular issue, but may nevertheless feel that their belief in this issue is better than alternative viewpoints. Such a feeling of belief superiority may arise from facts or empirical evidence they observe daily (Hall & Raimi, 2018). Additionally, it may come from moral or religious values, experts or credible sources, or a political or non-political group membership.

Moreover, belief superiority and perceived self-expertise have distinct objects. While the former focuses on belief, the latter focuses on knowledge. Consequently, high perceived self-expertise may not necessarily lead to a greater belief in correctness. Those high in self-expertise perceive that they are more knowledgeable about a topic. However, they may not conclude that their attitude is superior to others' viewpoints on s specific issue. For example, political psychology experts may perceive themselves as more knowledgeable in an intergroup theory. However, they may not perceive their viewpoints in that area as better than alternative viewpoints. Because of these differences, it will be worth investigating whether earned

dogmatism hypothesis can be extended to another kind of earned dogmatism condition, like high belief superiority.

Situation-Specific Open-Minded Cognition and Information Selection Bias

Although research on the factors influencing open-minded cognition has been widely carried out, few studies have investigated its psychological consequences. For example, studies show open-minded cognition may influence information selection (Wilson et al., 2017). Participants in the study imagined attending a Congressional committee meeting about an issue. Half of the committee were Democrats, and the other half were Republicans. They would provide their formal arguments about the issue. Participants then selected eight of the sixteen statements from these politicians that they would read. The study demonstrated that participants with higher open-minded cognition were more willing to attend to messages that contradict their initial opinion than those with lower open-minded cognition. Likewise, Crawford and Brandt (2018) show that participants high in open-minded cognition have a significant main effect on the decision to choose an attitude-consistent or attitude-inconsistent essay on the issue of the Affordable Care Act.

Studies regarding related constructs, such as actively open-minded cognition and intellectual humility show similar findings. For example, it has been found that people high in actively open-minded thinking can produce a more accurate judgment because of their willingness to view presented information before making their estimates (Haran, Ritov, Mellers, 2013), and because of their ability to evaluate argument quality objectively, independent of their prior belief (Stanovich & West, 1997). Likewise, intellectual humility is negatively correlated

with political bias (Bowes et al., 2022) and is more attentive to the strength of evidence to maintain more accurate views (Leary et al., 2017).

The Moderating Role of Affect

To further extend previous studies, the present study examines whether affect can moderate the effect of belief superiority on open-minded cognition and information selection. Previous research has confirmed that affect regulates cognition. For example, studies show that moods and emotions influence the perceived value of information and information accessibility, which then influence information-seeking behavior (Gasper & Zawadzki, 2013; Nabi, 2003). Similarly, previous studies have indicated that depression and dysphoria influence attention and interpretation biases (see Joormann & Siemer, 2011, for a review).

Two possible theoretical accounts can explain the role of affect in regulating cognition. First, according to the affect-as-information account, affective experience provides conscious information from unconscious appraisals of situations (Clore et al., 2001; Huntsinger, 2014). This account assumes that affect provides affective cues that guide information processing, judgment, and decision-making. Therefore, the effect of affect on cognition occurs because of the information contained by the affect, not the affect itself (Huntsinger, 2014). Affective feelings may provide feedback related to two aspects. First, it might provide feedback on the task at hand. For example, happy individuals are more likely than sad individuals to rely on cognitively accessible information at the time of judgment, such as stereotypes (Bodenhausen et al., 1994; Isbell, Clore & Wyer, 1999), technical expertise (Isen, Rosenzweig, & Young, 1991), and behavioral scripts (Bless et al., 1996). One reason for such effects is that positive affect

enhances individuals' confidence in the validity of abstract information (Bless, 2001, Clore et al., 2001).

Second, affect may provide feedback about external situations (Schwarz, 1990). For example, positive affect or happy moods, might inform individuals that the current psychological environment is not threatening (e.g., Mital & Ross Jr, 1998), has more benefits, and fewer risks (Slovic & Peters, 2006). In this situation, a significant amount of effort to process information is unnecessary, and individuals may prefer a heuristic to a systematic processing style. In contrast, negative affect informs individuals that the environment is problematic or threatening. In this situation, individuals will be more likely to process available information systematically to fix the problem. When the situation is unproblematic, relying on general knowledge structures will usually work well (Bless et al., 1996). Meanwhile, when the situation is problematic, relying on such knowledge could be maladaptive. However, it is important to note that the tendency to process information heuristically among happy individuals is not because they are unwilling to engage. Instead, it implies that happy feelings do not produce a need to do so. As described above, a simple instruction to evaluate a message quality can switch happy participants from a heuristic to a systematic processing style.

The implication of the affect-as-information account in regulating cognitive processing style and information processing seems straightforward. A positive mood will cause more biased cognitions than a negative one. The reason is that a positive mood signals an unproblematic situation. Therefore, individuals will be more likely to rely on existing knowledge that usually works well. In contrast, a negative mood will signal a problematic situation. Therefore, relying

on existing knowledge could be maladaptive. In this situation, processing novel information would be adaptive. However, the empirical evidence in this area of research is quite mixed.

On the one hand, supportive evidence can be seen from the studies of pride and negotiations. Pride is a positive emotion that arises from the awareness of one's achievements due to their abilities or efforts (Tangney, 1999; Tracy & Robins, 2004; Griskevicus, Shiota, Nowlis, 2010). Research has suggested that pride may emerge from social comparisons (Webster, Duvall, Gaines, & Smith, 2003), which motivates people to establish dominance (Tracy & Robins, 2004). Expressing pride shows an individual's success to others and increases the individual's social status (Tracy & Robins, 2007). Previous studies have shown that pride enhances feelings of superiority, overconfidence, and rigid thinking (Fishbach, Eyal, Finkelstein, 2010; Tracy & Robins, 2004; Vancouver & Kendall, 2006; Verbeke, Belschak, & Bagozzi, 2004). Studies in a negotiation context have shown that pride is likely to cause individuals to make decisions in the service of self-interest (Lea & Webley, 1997) and generate overconfidence, which undermines performance in a subsequent negotiation (Becker & Curhan, 2017). Based on these studies, it would be reasonable to argue that a specific positive emotion like pride would reduce open-minded cognition because pride increases individuals' tendency to prioritize self-interests and overconfidence.

On the other hand, previous studies show that positive affect may reduce cognitive bias, for example, in intergroup relationships. Intergroup bias is the systematic tendency to evaluate ingroups or their members more favorably than outgroups (Hewstone, 2002). In this sense, intergroup bias is characterized by a lower tendency to consider multiple sources of information, or they may consider multiple sources but process it biasedly. Dovidio, Gaertner, Isen, &

Lowrance (1995) found that positive affect elicited by candy bars increased participants' ability to evaluate the members of two groups as one-group representations of a superordinate group. It consequently reduced intergroup bias. This finding is in line with the notion that positive affect may influence cognitive organization (Isen, 1984a) by increasing individuals' ability to see relatedness and interconnections among cognitions and perhaps process cognitive material in a more integrated manner (Isen, 1984b).

Huntsinger, Isbell, and Clore (2014) argue that such seemingly inconsistent findings are attributed to the assumption that affect and cognition have a dedicated link. Therefore, they suggest that the relationship between affect and cognition is more flexible than often assumed. This view is introduced as an affect-as-cognitive feedback account. According to this account, rather than providing specific information, positive and negative affect serves as a reward and punishment regarding whatever cognitive processing is associated with them (Clore & Huntsinger, 2009; Huntsinger, 2014). Positive affect will reinforce, whereas the negative affect will inhibit ongoing cognitive processing.

This account is built on three basic ideas. First, appraisal processes are largely unconscious, and they can come to consciousness in the form of emotional feelings that influence judgment and information processing (Clore et al., 2001; Huntsinger et al., 2014). A meta-analysis study supports this idea by showing that mood effects are most potent when people routinely focus on their emotions, possess the ability to identify, distinguish, and describe specific emotions, and also pay greater attention (Gohm & Clore, 2000). Second, given that affective feelings emerge instantly even when conscious appraisals are absent, affective reactions are always experienced as being about whatever is in mind at the time (Clore & Huntsinger,

2009). That is, affect is not tightly linked to a specific information processing style but contains information concerning the value of one's current processing style (Isbell, Lair, & Rovenpor, 2016). Like facial expressions, which tell us information about others, emotional feelings provide information about the appraised relevance of situations for one's goals and concerns (Clore et al., 2001). Third, most people in most circumstances possess the same processing tendency and thoughts, the so-called episodic integral affect (Bodenhausen et al., 2001). In this sense, affect can play the role of facilitating or inhibiting the dominant processing tendency.

Studies have provided extensive evidence to support the affect as a cognitive feedback account. For example, Huntsinger & Smith (2009) found that implicit prejudice was positively associated with explicit prejudice when participants were in positive moods but not negative ones. Huntsinger, Clore, and Bar-Anan (2010) also found that happy participants had a narrower focus, and sad participants had a broadened focus when local attention was dominant. On the contrary, happy participants had a broadened focus, and sad participants had a narrowed focus when global attention was dominant. These studies support the idea that positive affect may lead people to view salient processing styles as appropriate in dealing with incoming information and provide a "go-signal" for the accessible mental content (Huntsinger, Isbell, &Clore, 2014). Negative affect, on the other hand, provides a "stop-signal that invalidates or inhibits the accessible cognitive tendencies.

Built on the affect-as-cognitive feedback account, it is argued that positive affect will facilitate the influence of belief superiority on dogmatic thinking. The idea is that belief superiority causes dogmatic thinking to become accessible. As outlined above, people high in belief superiority believe their viewpoint is more correct or better than alternative viewpoints.

Being dogmatic in this situation is adaptive and appropriate. Positive affect signals that such an accessible cognitive style is adequate to deal with relevant tasks, thus facilitating their use. On the other hand, when belief superiority is high, negative affect signals an accessible cognitive style to be dogmatic is inadequate, thus inhibiting their use. When belief superiority is low, positive affect signals open-mindedness is an adequate cognitive style and negative affect signals that such a processing inclination is not adequate.

In a similar vein, it is argued that those high in belief superiority have the motivation to maintain their positive attributes (i.e., superior viewpoints) and avoid psychological discomforts that occur when encountering attitude-inconsistent information. Under this circumstance, selecting attitude-consistent information is the accessible mental state when processing information. Therefore, when belief superiority is high, positive affect signals the adequacy of selecting attitude-consistent information, and negative affect signals the inadequacy of such behavior. When belief superiority is low, positive affect signals the adequacy of selecting attitude-inconsistent information, and negative affect signals the inadequacy of such behavior. The present research investigates the role of affect in navigating the impact of belief superiority on open-minded cognition in a situation-specific context and information selection bias. In this dissertation, I will specifically examine the role of happy and sad moods. Taken together, the purpose of the present research is twofold. First, it aims to examine the effect of belief superiority on information selection bias and its potential mediator: open-minded cognition in a situation-specific context. Second, it aims to test whether the effect of belief superiority on open-minded cognition and information selection depends on affective experiences (i.e., happy and sad moods).

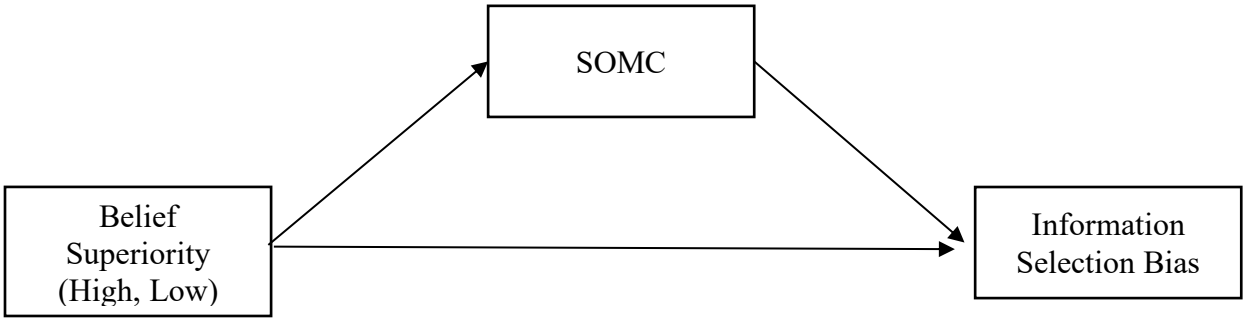
CHAPTER TWO

STUDY 1

Overview

The main goal of study 1 was to investigate the impact of belief superiority on situation specific open-minded cognition (SOMC) and information selection bias. It was predicted that: SOMC will be higher among those in low (versus high) in belief superiority (Hypothesis 1). It was also predicted that information selection bias (the tendency to select attitude-consistent information) will be higher among those high than low in belief superiority condition (Hypothesis 2). In addition, it was predicted that SOMC will be significantly negatively correlated with information selection bias (Hypothesis 3). Lastly, it was predicted that SOMC will partially mediate the effect of belief superiority on information selection bias (Hypothesis 4). The theoretical model of this study is illustrated in figure 1.

Figure 1. The Mediation Model



Following prior studies on belief superiority, I used a specific issue in altering the level of belief superiority, namely universal basic income (Hall & Raimi, 2018). This issue was chosen because it is a bipartisan issue in the U.S (Toner et al., 2013). In previous work, the belief superiority manipulation has been semi-successful. The present research revised the

manipulation strategy. While previous work has used group feedback (i.e., previous participants' opinions) to manipulate belief superiority, the present research used two additional forms of feedback: experts' opinions and factual truth from previous studies. By adding more sources of evidence, it was anticipated that the belief superiority manipulation will be stronger and more effective.

The present research extends previous research in various ways. First, the present research experimentally tested the influence of belief superiority on information selection in two distinct environments: social media and traditional mass media (i.e., online newspapers). Information selection was measured using the "Social Media Information Selection" scale to measure information selection in the social media environment. Participants were asked to indicate which social media accounts they would be more likely to follow, which social media content they would be more likely to share, and which social media content they would be more likely to enjoy. These two social media accounts were described as accounts that tend to support or oppose universal basic income. In the context of traditional mass media, the “Desirability of Reading News Articles” scale was used. This second measure adopts the news selection paradigm (Hall & Raimi, 2018; Brannon, Tgale, and Eagly, 2007). Participants were asked to indicate how desirable it would be for them to read a list of news articles pertaining to universal basic income.

Study 1 Method

Pilot Test

Prior to the actual experiment, a pilot test was conducted. The pilot test was conducted online, employing 246 student participants from Prolific. In the pilot test, belief superiority was

manipulated by informing participants that their attitude was consistent or inconsistent with most experts and recent experiments. Specifically, they were told that a recent poll conducted by WeMove and YouGov indicated that, among economic experts, [89.73/10.63%] agreed with their position on universal basic income. They were then informed that the polls performed in six European countries, showed that their opinion on universal basic income was widely regarded as the [superior/inferior] viewpoint because universal basic income has many [advantages/disadvantages]. Participants were then presented with a list of advantages/disadvantages and asked to select the four most compelling or convincing reasons. After completing this manipulation, participants completed some manipulation check items.

Next, open-minded cognition was measured by asking participants to indicate the degree to which they are willing to consider different opinions from others on the issue of guaranteed basic income (mediational variable). Lastly, biased information selection was assessed by asking participants to select 6 of 12 pieces of information about the universal basic income they would want to read on the next page. This information consisted of a brief news report summary, where half of the news items supported and the other half opposed universal basic income. Information selection bias was scored by computing the difference between the number of pro-attitudinal and counter-attitudinal news items selected (higher scores implying greater bias). See Appendix A for the complete questionnaire.

The analysis showed that belief superiority significantly influenced open-minded cognition, and open-minded cognition significantly influenced information selection. I also found a significant indirect effect of belief superiority on information selection via open-minded cognition. However, I did not find a significant “total” effect of belief superiority on information

selection, indicating that participants in the high and low belief superiority condition did not differ on information selection bias (the dependent measure).

Two possible reasons might account for the insignificant total effect. First, the belief superiority manipulation may have been too weak. For example, this may be because the evidence was explained too narrowly, making it less convincing. A slightly more detailed explanation may make it look more convincing and produce a stronger belief superiority manipulation. In addition, perhaps adding prior participants' opinions on universal basic income manipulation will make the manipulation even stronger because it can provide participants with information about the consensus about this specific issue from a group of similar people. In this sense, prior participants' opinions might be considered a relevant source of evidence to evaluate their own opinions.

Secondly, the dependent measure was sub-optimal. Namely, the dependent measure provided participants with advantages and disadvantages that may have appeared redundant or repetitive with the list of advantages and disadvantages the participants read at the beginning of the experiment (as part of the belief superiority manipulation). The desire to avoid exposing oneself to the same information twice (a desire to avoid boredom) when selecting information at the end of the experiment may have overridden the effect belief superiority on information selection bias. Thus, when designing the main study for Study 1, the materials were altered to promote a stronger manipulation of belief superiority and a dependent measure that is less problematic.

Main Study Method

Participants

The main experiment recruited 246 college students in the U.S. as participants (see Appendix D for the power analysis). They were recruited from the online participants' pool, Prolific. Participants were selected based on the following criteria: U.S. residents currently enrolled as undergraduate students in the U.S, aged between 18 and 24 years old. Two participants were excluded from the analysis. The first participant had a massive missing value, and the second participant made an error in reporting their belief at the beginning of the experiment, as indicated by their response to an open-ended question in the last section of the questionnaire.

Procedure

Participants completed the experiment questionnaire through an online platform survey, Qualtrics. The questionnaire consisted of five parts. Participants indicated their belief in universal basic income in the first part and then undertook the belief superiority manipulation task. Participants read a summary of evidence ostensibly from previous studies, which suggested that their belief about universal basic income is superior or inferior to other citizens' viewpoints. Participants then completed a belief superiority measure to check the manipulation efficacy. In the second part, participants completed the open-minded cognition measure. Then, participants were asked to complete information selection measures in the third part. They started with the online information selection measure, followed by the news selection measure. Finally, in the last part, participants reported their demographic information. They answered some questions about hypothesis awareness and how believable they found feedback they received regarding

their belief in universal basic income at the beginning of the study. The full questionnaire can be found in Appendix B.

Political Belief Measure

Prior to the belief superiority manipulation, participants completed a question measuring a political belief about universal basic income. They responded on a scale of 1 to 4 (1= I am strongly against universal basic income; 2= I am somewhat against a universal basic income; 3= I am somewhat in favor of a universal basic income; 4= I am strongly in favor of universal basic income).

Manipulation of Belief Superiority

Following previous work, belief superiority was manipulated using the relative attitude correctness paradigm (Hall & Raimi, 2018). In the original research, researchers manipulated the consensus around the specific attitude to bolster or reduce participants' sense of attitude correctness. That is, participants were informed that most participants from a previous study had supported or failed to support their beliefs. This manipulation has been used to alter attitude correctness, a sub-component of attitude certainty (Cheatham & Tormal, 2015; Rios, DeMarree, Statzer, 2014). To induce a sense of superiority, which involves a comparison to others' beliefs, Hall and Raimi (2018) modified the attitude correctness paradigm by giving participants feedback about how other study participants sharing similar views with them had performed on a knowledge assessment. Half participants were told, "Of the hundreds of participants who have taken our previous studies, those who reported a similar belief to yours about guaranteed basic income in the U.S. received an average score of 89.73% (or 10.63%) on the knowledge assessments." Then, participants completed a belief superiority measure. This manipulation

successfully reduced belief superiority in the low condition but did not successfully raise belief superiority in the high condition.

One possible reason such a manipulation may have failed to increase belief superiority is that the feedback did not explicitly compare participants' beliefs with other beliefs. Feeling superior is not only feeling correct about one's attitude or belief, but also feeling that one's own belief is superior and that others' viewpoints are inferior. The information that the majority of previous studies participants agree/disagree with them is likely to inflict the perception of correctness but might not to be adequate to inflict a sense of superiority. With these considerations in mind, the pilot study included experts' opinions and factual truth from previous experiments. However, in addition to other factors as explained above, these two sources remained ineffective.

Based on findings from the previous study and pilot test, belief superiority was changed in two ways. First, more sources of evidence were included to increase the strength of the superiority manipulation. In addition to experts and factual evidence from previous experimental research, experiment 1 included previous participants' opinions as the basis to evaluate their opinions on universal basic income. Second, the list of advantages or disadvantages of universal basic income in the belief superiority manipulation was removed in order to eliminate any redundancy with the dependent measures.

Belief superiority was manipulated by informing participants whether or not their belief about universal basic income was consistent with previous research. After indicating their belief, participants were told that they would learn about three previous research findings that they could use to evaluate their belief in guaranteed basic income. In the next section, they read the

following information: “First, it is important to note that, among the hundreds of participants who have completed our previous studies, **[83%/ only 17%]** have reported a similar belief to yours about guaranteed basic income in the U.S. Second, a recent poll within the United States conducted by WeMove and YouGov indicates that among economic experts, **[89.73/ only 10.63%]** agree with your position on guaranteed basic income. Implications of studies performed in Europe paint a similar picture. Specifically, experiments were performed in six European cities. These cities gave randomly selected residents guaranteed basic income for two years, with no strings attached. The results showed that guaranteed basic income **[significantly improved/failed to improve]** participants' overall well-being (Note that the wording of the prior sentence will coincide with the participant's position in the high belief superiority condition but contradict the participant's position in the low belief superiority condition). Put simply, these studies show that your opinion is widely regarded as **[superior / inferior]** to opposing viewpoints regarding this issue. In contrast, those who disagree with you possess an opinion that is widely considered **[superior / inferior]** to your viewpoint."

Belief Superiority Manipulation Check

After the belief superiority manipulation, a single question was administered to check the effectiveness of the belief superiority's manipulation. Participants were asked how much they believe their belief on universal basic income is more correct than other citizens' beliefs. They responded on a scale from 1 to 5 (1= No more correct than other viewpoints to 10= Totally correct, mine is the only correct view).

Situation-Specific Open-Minded Cognition Measure (Mediator)

Next, participants were asked to imagine encountering a group of people who possess opinions regarding the universal basic income that differs from theirs. These people were described as providing reasons for their opinions. Then, participants completed the situation-specific open-minded cognition six-item measure (Ottati et al., 2015). For example, two of the items asked participants to indicate the degree to which to following statements: "In this situation, I would be open to considering these viewpoints," and "In this situation, I would "tune out" messages I disagree with." Participants responded on a scale ranging from 1 to 7 (1= Strongly Disagree to 7= Strongly Agree). After reverse scoring the items worded in a closed-minded direction, responses to the six items were averaged to compute each participant's situation-specific open-minded cognition score.

Information Selection Bias Measure (Dependent Variable)

In the pilot test, information selection bias (dependent measure) was measured by asking participants to select a specific number of news items that they wanted to read at the end of experiment. However, this measure is problematic. The present experiment no longer used this scale and instead used two new measures. The first measure was the Social Media Information Selection scale, which operationalized information selection in terms of the likelihood to follow social media accounts, and share and enjoy social media contents that support or oppose universal basic income. Participants were instructed to assume that they were given an opportunity to choose to follow, share, and reading information from one of two social media accounts, account A or account B. Both of these two accounts post information about universal basic income. Social media account A tends to post information that opposes universal basic

income. Social media account B tends to post information that supports guaranteed basic income. They next read some examples of postings from social media accounts A and B. Then, participants were asked to indicate which account they would be more likely to follow, and which social media contents they would be more likely to share and enjoy.

Specifically, in the follow item, participants specifically read this question: "If given a choice between FOLLOWING social media account A or social media account B, which social media account would you be more likely to follow throughout the next year? I would be more likely to follow…". The similar question was asked to measure the sharing tendency. They were asked following question: "If given a choice between SHARING the contents posted by social media account A or social media account B, which account's social media contents would you be more likely to share throughout the next year? I would be more likely to share content from…". Additionally, they were asked to indicate which social media account content they would enjoy reading. They responded to this question: If given a choice between READING the contents posted by social media account A or social media account B, which account's social media contents would be more enjoyable for you to read? I would be more likely to enjoy reading contents from*…".* This additional question provided a third measure of the dependent variable construct. All three dependent measure items (follow, share, enjoy) have a bipolar response format, where participants respond on a scale from 1 (Social Media Account A) to 10 (Social Media Account B).

The information selection score was computed by averaging the scores on the follow, share, and enjoyment questions. Before the computation, the scores on the three questions were reversed and coded for participants who opposed universal basic income. In this way, higher

average scores indicate higher information selection bias in all cases. As an exploration, the effect on information selection was also examined separately for the follow, share, and enjoyment questions. The goal was to explore whether the effect would be more likely to appear in certain online behavior. Previous studies have indeed indicated that following and sharing behavior on social media involve different psychological processes. For example, sharing behavior involves interactions, while the following behavior does not include interaction (e.g., Bail, Argyle, Brown, & Volfovsky, 2018; Gillani et al., 2018). In this situation, sharing or reading enjoyment could be a more dynamic manifestation of information selection bias than the following behavior.

A final measure was the Desirability of Reading News Articles scale. It assessed participants' desirability of reading news articles that support versus oppose universal basic income. Participants were given six news titles along with their summaries. Half of the news items supported and the other half opposed universal basic income. The articles were in pairs that describe three different facets. The first facet pertains to universal basic income as a means to reduce income inequality. The second facet pertains to the cost of universal basic income. The last facet pertains to the consequences of universal basic income on women's economic well-being. To increase the credibility of the news, the name of authors and publishers were presented next to the summaries. For example, the news titled "Universal Basic Income is a Poor Tool to Solve Income Inequality" was described as follows: "This article opposes universal basic income. The author suggests that universal basic income would result in a highly inefficient allocation of resources. It means that while the economically vulnerable would receive support, so too would middle- to upper-income families (written by Magne Mogstad, published in The

Economist on February 23, 2022)." Participants were then asked to indicate how desirable it would be to read this article: “How desirable for you it would be to read this article”. They responded on a scale from 1 (not at all desirable) to 10 (extremely desirable).

A summary Desirability of Reading score was computed by subtracting the participant's average score on the three attitude-inconsistent information from their average score on the three attitude-consistent information. In this case, the higher the score on this measure, the higher the information selection bias. As an exploration, this Desirability of Reading score was also examined separately for each news article pair. This bias score was computed by subtracting the participant's score on the attitude-inconsistent item in the pair from their score on the attitude-consistent item in the pair. The goal is to determine whether the effect will be more likely to appear on specific facets of the universal basic income issue, or if it is consistent across all facets of the universal basic income issue.

Demographic Questions

Some demographic questions were asked in the final part of the questionnaire, including age, gender, whether participants are currently undergraduate students, political ideology, and partisanship.

Study Awareness

Additionally, participants were asked about the degree to which they found the feedback regarding their response on universal basic income at the beginning believable and any thoughts or guesses about what this study was about.

Study 1 Results

Manipulation Checks

Participants were asked to indicate the degree to which they think their beliefs on universal basic income are much more correct than other citizens' beliefs on this issue. The analysis showed that participants in the high belief superiority condition had a higher score in the manipulation check question (M= 2.38, SD= 1.14) than those in the low belief superiority condition (M= 2.01, SD= 1.16). An independent sample t-test showed that there was a significant mean difference between these two conditions (t(242)= 2.55, p= .011, Cohen's d= .33).

The Influence of Belief Superiority on Situation-Specific Open-Minded Cognition

Next, an independent sample t-test was performed to examine the influence of belief superiority on SOMC. The analysis showed that participants in the high belief superiority condition had a lower score on SOMC (M= 4.7, SD= .79) than those in the low belief superiority condition (M= 5.03, SD= .64). The difference was statistically significant (t(227) = -3.59, p<.001, Cohen's d= .46).

The Influence of Belief Superiority on Information Selection

A subsequent analysis tested the “total” effect of belief superiority on two measures of information selection. The first measure was the online information selection measure (information selection bias measure 1). The score was composed of the follow, share, and enjoyment items. As described above, the information selection bias score was computed by averaging the scores on the follow, share, and enjoyment questions. These items formed a reliable scale (alpha = .92). The independent sample t-test showed that information selection bias

was significantly higher in the high belief superiority condition (M= 7.97, SD= 2.23) than in the low belief superiority condition (M= 7.39, SD= 2.02), t(242)= 2.15, p= .033, Cohen's d= .28.

As an exploration, I also examined the influence of belief superiority separately on follow, share, and reading enjoyment questions. The analysis showed a consistent finding. Participants in the high belief superiority condition were more likely to follow a social media account (M= 8.18, SD= 2.34) and share (M= 7.96, SD= 2.42) and enjoy reading (M= 7.78, SD= 2.44) social media content consistent with their belief in universal basic income than those in the low belief superiority condition (M= 7.54, SD= 2.12; M= 7.44, SD= 2.12; M= 7.19, SD= 2.35 respectively). The difference was statistically significant for the follow item (t(242)= 2.22, p= .027, Cohen's d= .29), and enjoy item (t(242)= 1.95, p= .05, Cohen's d= .25), and marginally significant for the share item (t(242)= 1.79, p= .074, Cohen's d= .23). In other words, the information selection bias effect was observed in each item and also in the combined score.

The second dependent variable scale used the news selection paradigm (information selection bias measure 2A). The information selection score was computed by subtracting the participant's average score on the attitude-consistent information from their average score on the attitude-inconsistent information. In this case, the higher the score on this measure, the higher the information selection bias. As an exploration, I also examined the information selection bias in this scale separately for each topic. The analysis showed that the influence of belief superiority on information selection was not evident in the combined scores (t(242)= -.80, p= .425, d= .10). However, an inspection of the effects in each topic separately showed that there was a significant effect of belief superiority on the selection of news about the effect of universal basic income on inequality (t(234)= 1.74, p= .083, d= .22) and the cost of universal basic income (t(242)= 2.10,

p= .037, d= .27). There was not a significant effect of belief superiority on the selection of news in the topic about the effect of universal basic income on women (t((242)= -.17, p= .87, d= .02). These findings might be because participants are not familiar with the gender aspect of universal basic income. Thus, it may reduce the credibility of the news. Based on these findings, scores from the second measure of information selection were computed by averaging information selection scores from the first and second topics (information selection bias measure 2B). An independent sample t-test was then performed to test the influence of belief superiority on the refined information selection (using two items). The analysis showed that participants in the high belief superiority condition had higher information selection bias (M= 1.69, SD= 2.23) than those in the lower belief superiority condition (M= 1.08, SD= 2.03), t(242)= 2.23, p= .027, d= .29)

To explore the possibility that the two measures of information selection bias could form a scale, a correlational analysis was conducted. The analysis showed that the correlation between information selection bias measure 1 and measure 2B was moderate and significant (r= .44, p<.001). It showed that the two measures were correlated but distinct. Because the measures were distinct, this suggests that the aforementioned analysis which predicted measure 1 and measure 2B separately was appropriate.

Nevertheless, for exploratory purposes, I also combined the score by computing the average scores of these two measures. Another independent sample t-test was conducted to investigate the effect of belief superiority on the averaged information selection bias score. The result showed that the effect was significant (t(242)= -2.59, p= .010, Cohen's d= .33). Participants in the high belief superiority condition had higher information selection bias score

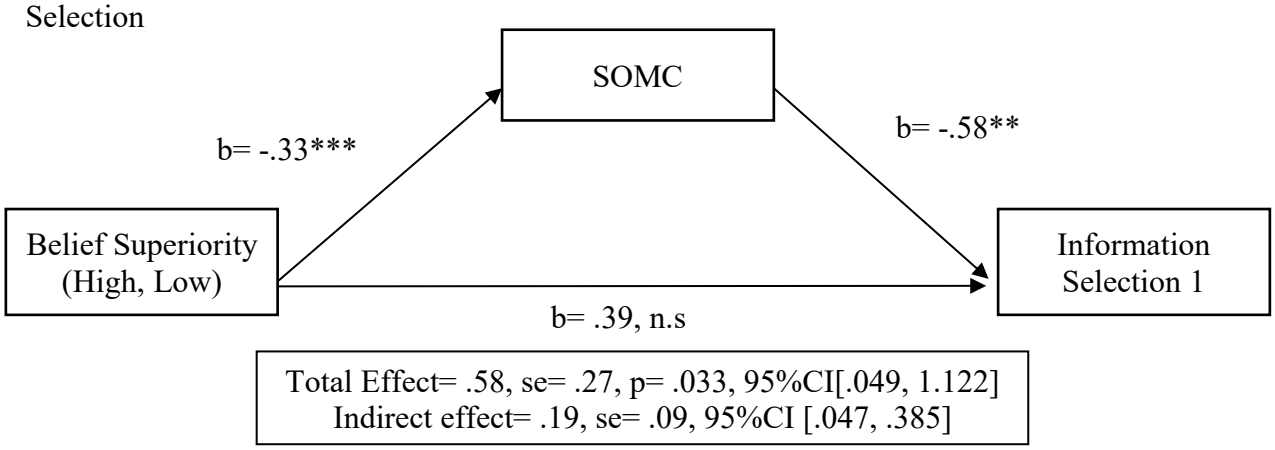
(M= 4.83, SD= 1.85) than those in lower belief superiority condition (M= 4.23, SD= 1.74). In the subsequent analysis, the dependent variable will use this average score.

Moving forward, throughout this dissertation, I will replicate analyses predicting the outcome variable three times; once using information selection bias measure 1 as the dependent measure, once using information selection bias measure 2B as the dependent measure, and once using the combined average of these two scores as the dependent measure (for exploratory purposes).

Mediation Analysis

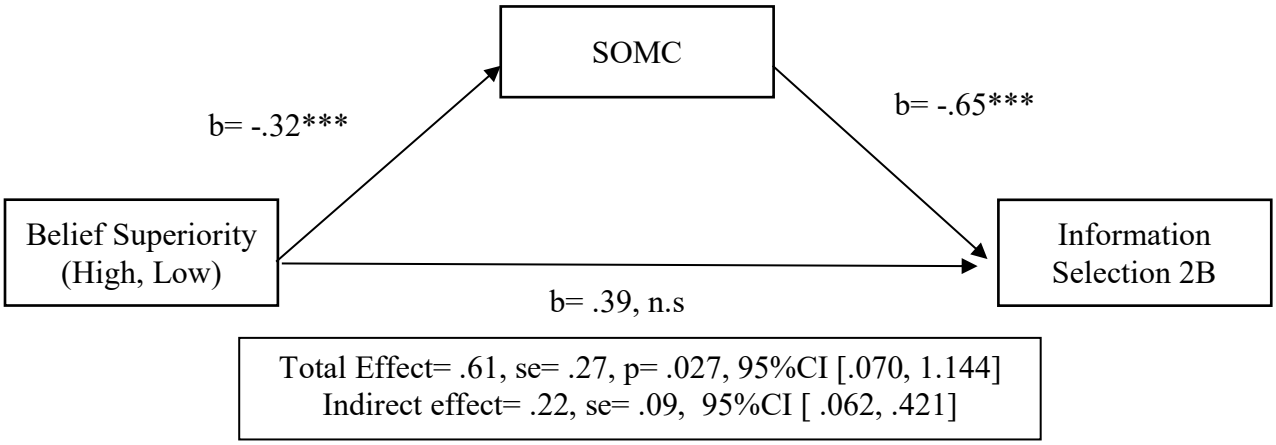
To test the mediation effect hypothesis, a mediation analysis using PROCESS Macro Model 4 on SPSS was performed to determine if SOMC mediated the influence of belief superiority on information selection. First, the analysis was performed on the follow-and-share scale of information selection. The analysis showed that belief superiority significantly predicted information selection bias when SOMC was not present (total effect= .58, se= .27, p= .033, 95%CI [.049, 1.122]. When SOMC was accounted for, the effect was no longer significant, indicating a significant mediation effect of SOMC (b= .19, se= .09, 95%CI [.047, .385]. Further, the analysis showed that belief superiority significantly decreased SOMC (b= -.33, se= .09, p<.001, 95%CI[-.514, -.151], and SOMC significantly decreased information selection bias (b= -.58, se= .19, p= .002, 95% CI[-.945, -.210]. The findings of this mediation analysis are illustrated in the Figure 2.

Figure 2. The Mediation Model of Belief Superiority, SOMC, and Social Media Information Selection



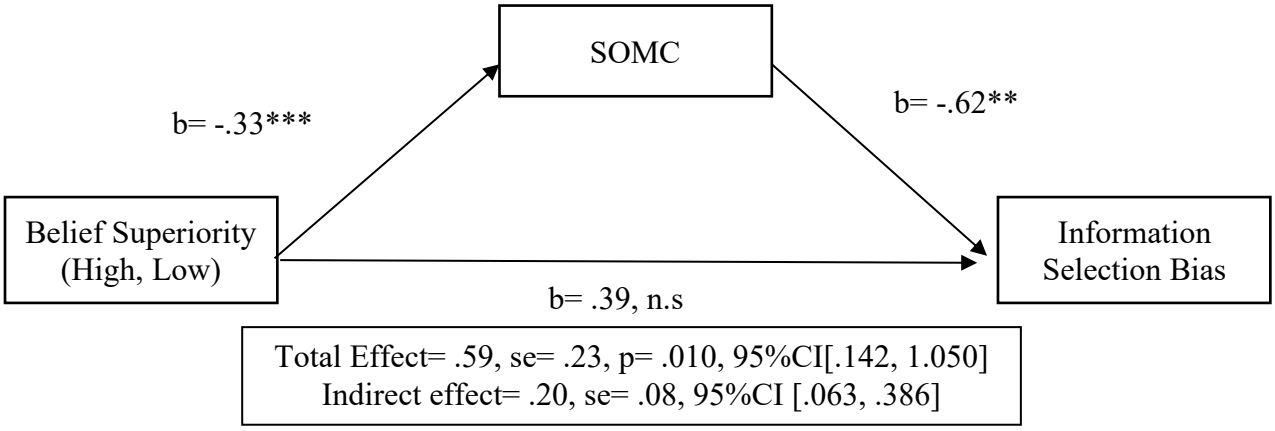
The same analysis was performed for the information selection bias measure 2B . The analysis showed a consistent finding (see Figure 3). As per the prior analysis, the total effect of belief superiority on information selection was significant (b= .61, se= .27, p= .027, 95% CI [.070, 1.144]. The effect was no longer significant when SOMC was accounted for, as indicated by the insignificant direct effect (b= .39, se= .27, p =. 155, 95%CI [-.149, .929]. It showed that SOMC significantly mediated the effect of belief superiority on information selection bias (b= .22, se= .09, 95%CI [.058, .415]. Further, the analysis showed that belief superiority significantly decreased SOMC (b= .32, se= .09, p<.001, 95%CI [-5.139, -.151], and SOMC significantly decreased information selection bias (b= -.65, se= .19, p<.001, 95% CI [-1.019, -.288].

Figure 3. The Mediation Model of Belief Superiority, SOMC, and Desirability of Reading News Articles



Finally, a mediation analysis was performed with the average score of the two measures of information selection bias. The analysis showed consistent results (see Figure 4). The total effect of belief superiority on information selection bias was significant (b= .59, se= .23, p= .010, 95%[.142, 1.050]. The effect was no longer significant when SOMC was accounted for (b= .39, se= .23, p =.089, 95%CI[-.061, .844]), indicating a significant mediation effect of SOMC (b= .20, se= .08, 95%CI[.063, .386]. Further, the effect of belief superiority on SOMC (b= -.33, se= .09, p<.001, 95%CI[-.514, -.151] and the effect of SOMC on averaged information selection bias (b= -.62, se= .16, p<.001, 95%CI [-.923, -.308] were significant in the expected direction.

Figure 4. The Mediation Model of Belief Superiority, SOMC, and Information Selection Bias



Study 1 aimed to test the effect of belief superiority on information selection bias and mediation effect of situation specific open-minded cognition. Findings from experiment 1 supported all hypotheses. Belief superiority significantly influences open-minded cognition and information selection bias. The effect of belief superiority on information selection is observed in both types of measurements: follow and share measure and the desirability of reading news article measure. Such an effect was also observed when information selection bias scored were averaged across measurements. Importantly, this experiment showed that open-minded cognition mediated the effect of belief superiority on information selection.

The effect of belief superiority on open-minded cognition aligns with the Earned Dogmatism Hypothesis (Ottati et al., 2015). According to this hypothesis, certain individuals may exhibit a tendency toward dogmatism due to the entitlement they have earned, such as by being considered an expert. The present research extends the application of this hypothesis, demonstrating its relevance in understanding the effects of belief superiority, extending beyond perceived self-expertise.

Moreover, study 1 shows that belief superiority not only shapes cognitive style, but also information selection. That is, high belief superiority causes higher information selection bias than low belief superiority. This finding aligns with the defensive motivational account of information selection bias (Fischer & Greitmeyer, 2010; Hart, 2009; Fischer, 2011). According to this theoretical framework, individuals possess a desire to uphold attitudes and beliefs that align with their pre-existing convictions, particularly when these attitudes are integral to one's self-concept. Notably, the present research suggests that this defensive motivation supersedes accuracy motivation, which could provide an alternative explanation of motivations in

information selection. It may be attributed to the topic being used in this study is relevance to personal values rather than individual outcomes (Jonas & Frey, 2003; Fischer, Jonas, et al., 2008).

The next question is then under what conditions the effect of belief superiority on open-minded cognition and information selection bias are more likely or less likely to occur. One possible condition that can moderate the effect is affect. Numerous studies have provided important evidence linking affect and cognition. While earlier studies suggest a straightforward relationship, positive affect increases bias, and negative affect reduces bias, recent studies show mixed findings. Huntsinger et al. (2014) suggest that it is attributed to the assumption that affect and cognition have a dedicated link. They instead suggest an affect-as-cognitive feedback account, which argues that the role of affect in regulating cognition is more flexible than initially thought. In this sense, they assert that positive and negative affect plays a role in reinforcing and inhibiting whatever cognition is associated with them. A follow-up study will be conducted to test this account. Specifically, experiment 2 tested if affect (i.e., happy and sad mood) would regulate the influence of belief superiority on open-minded cognition and information selection bias.

CHAPTER THREE

STUDY 2

Overview

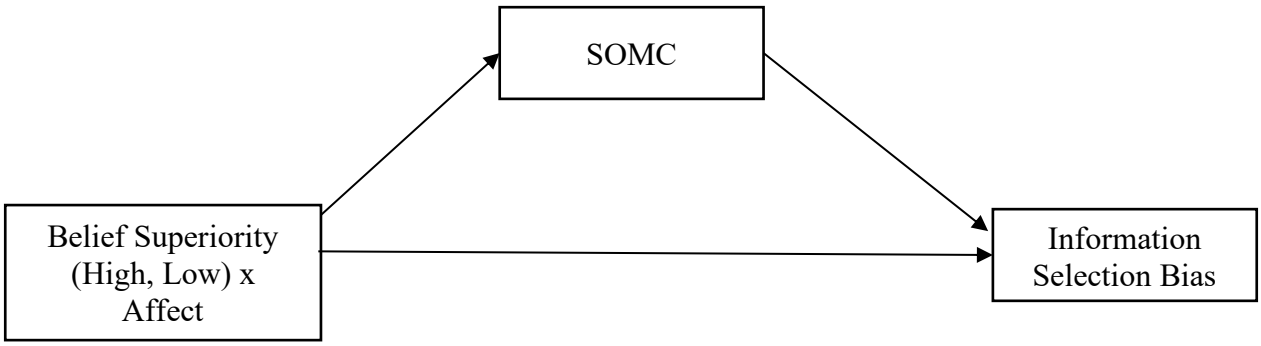
Study 2 extends study 1 by investigating the moderating role of affect. It is argued that findings in study 1 will be more pronounced under the happy mood condition than the sad mood condition. The same issue as in study 1 will be used in study 2. This study extends previous research on affect-as-cognitive feedback by examining the effect of affect in regulating general cognitive tendencies. Previous research in this area mainly focused on the currently accessible processing style or thinking style, such as heuristic vs. systematic and global vs. local (Huntsinger, Isbell, Clore, 2014; Huntsinger & Ray, 2016). Few studies have investigated its role in a more general cognitive tendency (e.g., Huntsinger, Sinclair, Clore, 2009). Following previous studies on the affect-as-cognitive feedback approach, the present research will focus on general affective experience- happy and sad moods (e.g., Huntsinger & Ray, 2016; Isbell, Lair, & Rovenpor, 2016). In addition, the present research test the idea of the affect-as-cognitive feedback account in a political context, which has not been examined in previous research.

Hypotheses

Experiment 2 was conducted to test the role of happy and sad mood in facilitating or inhibiting the influence of belief superiority on SOMC and information selection bias. In addition, it examined whether moods will moderate the mediation effect of SOMC. Built on the affect-as-cognitive feedback account, it was predicted that: within the happy mood conditions, high belief superiority will lead to lower SOMC than low belief superiority (Hypothesis 5a) and within the sad mood conditions, high belief superiority will lead to higher SOMC than low belief

superiority (Hypothesis 5b). In a similar vein, it was predicted that within the happy mood conditions, high belief superiority will lead to higher information selection bias than low belief superiority (Hypothesis 6a) and within the sad mood conditions, high belief superiority will lead to lower information selection bias than low belief superiority (Hypothesis 6b). Taken together, Hypotheses 5 and 6 suggest that happy mood will magnify the belief superiority effect on SOMC and information selection bias. In contrast, sad mood will reverse or reduce the magnitude of the belief superiority effect on SOMC and information selection bias. Furthermore, the second study was also expected to produce a moderated mediation effect. Specifically, it was predicted that affect will moderate SOMC's role in mediating belief superiority's effect on information selection (Hypothesis 7). The theoretical model of this study is illustrated in Figure 5 below.

Figure 5. The Moderated Mediation Model



Study 2 Method

Participants

317 participants took part in the experiment (see Appendix E for the Power Analysis). 33 participants were excluded from the analysis because they did not complete the emotion manipulation task according to the task instruction (did not play the music). The final

participants were 284 participants (79.9% female, 18.7% male, .7% non-binary, and .7% prefer to self-describe).

Procedure

The experiment took place in a lab, wherein each session, participants were seated in separate cubicles and learned that they will perform tasks for three unrelated studies. There were between one and five participants who participated in the experiment in each session. As in study 1, participants indicated their belief in universal basic income and undertook the belief superiority manipulation task in the first part. Participants read a paragraph summarizing previous empirical findings on universal basic income. Participants then completed a belief superiority measure to check the manipulation efficacy. In the second part, participants completed a "Life Events Inventory" to induce happy or sad moods while listening to music that can induce happy or sad moods. Following the mood inductions, participants completed the open-minded cognition measure. Participants were asked to complete information selection bias measures in the fourth part. They started with the online information selection measure, followed by the desirability of reading news article measure. Finally, in the last part, participants responded to manipulation check questions, reported their demographic information and answered some questions about hypothesis awareness and how believable they found feedback they receive regarding their belief in universal basic income at the beginning of the study. The full questionnaire can be seen in Appendix C.

Manipulation

This study used the same belief superiority manipulation as study 1. Mood was manipulated using the "Life Events Inventory." Participants were asked to describe an event as

vividly and as detailed as possible that made them feel "really happy" or "sad." Participants were further instructed to focus on the emotional aspects of the happy or sad event to evoke a strong emotional response. Participants in all conditions were given 8 minutes to complete the task while listening via earphones to music that previously has been found to induce either a happy ("Mozart's "Eine Kleine Nacht Musik") or sad mood ("Mahler's "Adagietto; Huntsinger, 2010). The music was inserted into the online survey platform (Qualtrics) in the same page of writing task. Participants was asked to play the music before they wrote the event, and the music was automatically stopped after 8 minutes.

Measures

Belief about universal basic income, open-minded cognition, and information selections was measured using the same measure as study 1. As previously explained in study 1, desirability of reading news article was measured using information selection bias measure 2B rather than 2A. Two measures were added. First, to confirm the efficacy of the mood induction task, participants were asked to indicate their mood on six 7-point scales (happy, sad, good, bad, positive, and negative). Second, to assess possible arousal differences across the mood conditions, participants were asked to indicate how aroused they felt after listening to the musical selections. These questions were asked after the information selection bias measures (see appendix B).

Study 2 Results

Manipulation Check

To examine the effectiveness of the manipulations, independent sample t-tests were conducted. Analysis revealed that, as expected, participants in the belief superiority condition

had a higher score in the high belief superiority (M= 1.86, SD= .99) condition than those in the low belief superiority condition (M= 1.53, SD= .81). The difference was statistically significant, t(282)= 3.05, p= .003, Cohen's d= .36. The mood manipulation also worked as expected. The analysis showed that participants in the happy condition was happier (M= 5.48, SD= 1.14) than those in the sad condition (M= 3.08, SD= 1.18), and the difference was statistically significant (t(282)= 17.41, p<.001, Cohen's d= 2.01). On the other hand, participants in the sad condition was sadder (M= 4.72, SD= 1.32) than those in the happy condition (M= 1.93, SD= 1.17), and the difference was statistically significant (t(282)= 18.94, p<.001, Cohen's d= 2.25). Additionally, arousal level was examined. The analysis showed that arousal was not statistically different across condition (t(282)= .73, p= .464). Importantly, there was not a significant interaction effect of belief superiority and mood on the happy and sad manipulation check questions (F(1,280)= .003, p= .959 and F(1,280)= 2.64, p= .105 respectively), suggesting that the belief superiority manipulations did not influence the mood conditions.

Hypotheses Testing

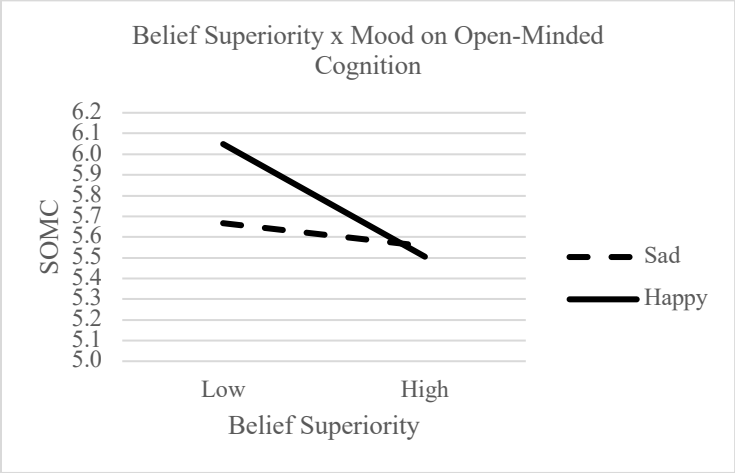
Open-Minded Cognition. Hypothesis 5a predicted that within the happy mood conditions, high belief superiority will lead to lower SOMC than low belief superiority and hypothesis 5b predicted that within the sad mood conditions, high belief superiority will lead to higher SOMC than low belief superiority. Consistent with this expectation (see Table 1), a 2 (belief superiority) by 2 (affect) analysis of variance (ANOVA) revealed a significant interaction between belief superiority and affect on SOMC, F(1,280)= 4.15, p= .042, η_p^2= .02. The main effect analysis showed that belief superiority had a significant main effect on SOMC (F(1,280)= 9.514, p<.001, η_p^2= .03), but not mood (F(1, 280)= 2.44, p= .120, η_p^2= .01)

Table 1. ANOVA Results Using SOMC as Dependent Variable

Predictor	SS	df	F	p	Partial Eta Squared
Intercept	9177.45	1	11500.11	<.001	.98
Belief Superiority	7.59	1	9.514	<.001	.03
Mood	1.94	1	2.44	.120	.01
Belief Superiority * Mood	3.32	1	4.15	.042	.02
Error	223.35	280			

A simple effect analysis using MANOVA showed that the effect of belief superiority was significant in the happy condition, $F(1,280) = 13.22$, $p < .001$, but not in the sad condition, $F(1,280) = 0.54$, $p = .462$. Results showed that participants with high belief superiority had lower SOMC ($M = 5.50$, $SD = 1.00$) than those with low belief superiority ($M = 6.05$, $SD = 0.77$) in the happy condition. In contrast, high belief superiority ($M = 5.56$, $SD = 0.93$) and low belief superiority participants ($M = 5.67$, $SD = 0.87$) did not differ in SOMC in the sad condition (see Figure 6). Although the impact of belief superiority on SOMC was not opposite in the sad condition compared to the happy condition, this finding suggests that sad conditions stop participants from engaging in their typical cognitive responses under both high and low belief superiority conditions. Thus, the findings supported the hypotheses, consistent with the affect-as-cognitive feedback account.

Figure 6. Interaction Effect Belief Superiority and Mood on SOMC



Information Selection Bias. Hypothesis 6a predicted that within the happy mood condition, high belief superiority will lead to higher information selection bias than low belief superiority and hypothesis 6b predicted that within the sad mood condition, high belief superiority will lead to lower information selection bias than low belief superiority. To test these hypotheses, a 2-way ANOVA using two different measures of information selection bias as the dependent variable was conducted separately. The first measure was the Social Media Information Selection Bias measure. The second measure was the Desirability of Reading News Article measure. These measures were exactly the same as used in the first study.

The analysis showed that (see Table 2), in contrast to the hypotheses, there was not a significant interaction effect between belief superiority and mood when predicting information selection bias measure 1 ($F(1, 280)= .67$, $p= .413$, $\eta_p^2 = .002$). However, the mean distributions were overall in the expected direction. Within the happy condition, high belief superiority led to higher information selection bias ($M= 7.20$, $SD= 2.31$) than low belief superiority ($M= 6.47$, $SD= .2.08$). In contrast, within the sad condition, information selection bias in the high ($M=$

6.41, SD= 2.19) and low belief superiority (M=6.73, SD= 1.92) were not much different. Thus, H5b and H6b were not supported at conventional levels of significance using information selection bias measure 1, although the pattern of means was in the expected direction. The main effect analysis showed that belief superiority had a significant main effect on information selection bias measure 1, F(1, 280)= 4.27, p=.040, η_p^2 = .015, but not mood, (F(1, 280)= 1.06, p= .305, η_p^2= .002).

Table 2. ANOVA Results using Social Media Information Selection as Dependent Variable

Predictor	SS	df	F	p	Partial Eta Squared
Intercept	12712.28	1	2813.54	<.001	.909
Belief Superiority	19.29	1	4.27	.040	.015
Mood	4.78	1	1.06	.305	.004
Belief Superiority * Mood	3.04	1	.67	.413	.002
Error	1265.11	280			

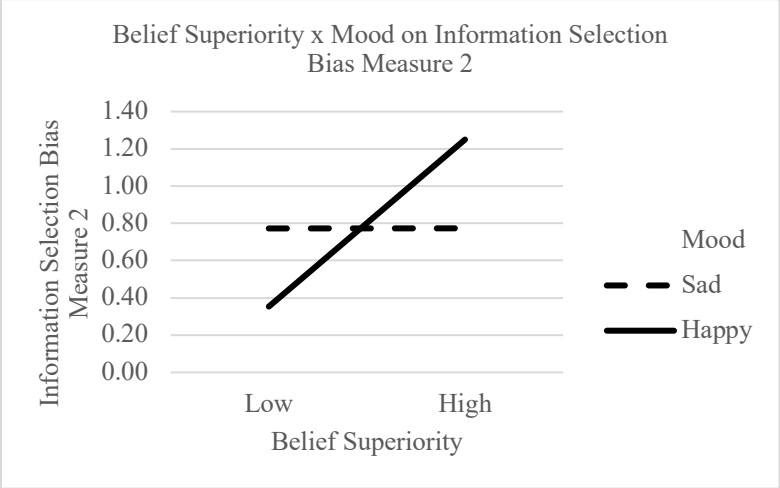
The next analysis was the 2 (belief superiority) by 2 (affect) using information selection bias measure 2 (Desirability of Reading News Article) as the dependent variable. Consistent with the expectations (see Table 3), there was a significant interaction effect between belief superiority and mood on the dependent variable, F(1,280)= 5.22 p= .023. There was also a main effect of belief superiority on the dependent variable, F(1, 280)= 5.24, p=.023, but not mood, F(1,280)= .021, p= .884.

Table 3. ANOVA Results using Desirability of Reading News Article as Dependent Variable

Predictor	SS	df	F	p	Partial Eta Squared
Intercept	175.48	1	64.49	<.001	.187
Belief Superiority	14.24	1	5.24	.023	.018
Mood	.06	1	.021	.884	.000
Belief Superiority * Mood	14.21	1	5.22	.023	.018
Error	761.87	280			

A simple effect analysis using MANOVA showed that the effect of belief superiority was significant in the happy condition, $F(1,280) = 10.54$, $p = .001$, but not in the sad condition, $F(1,280) = 0.00$, $p = .998$. Results showed that, as predicted, participants with high belief superiority had higher information selection bias ($M = 1.25$, $SD = 1.77$) than those with low belief superiority ($M = 0.35$, $SD = 1.49$) in the happy condition. In contrast, high belief superiority ($M = 0.77$, $SD = 1.64$) and low belief superiority participants ($M = 0.88$, $SD = 1.71$) did not differ in information selection bias in the sad condition. These results are depicted in Figure 7. This finding is consistent with what was observed for the model using SOMC as the dependent variable. Thus, hypotheses 6a and 6b were supported using information selection bias measure 2 as the dependent variable.

Figure 7. Interaction Effect Belief Superiority and Mood on Desirability of Reading News Article



Moderated Mediation Effect. Hypothesis 7 predicted that affect will moderate open-minded cognition's role in mediating belief superiority's effect on information selection. Since hypotheses 6a and 6b were not supported using information selection bias measure 1 as the dependent variable, the moderated mediation effect analysis was performed only using information selection bias measure 2. To test Hypothesis 7, a moderated mediation analysis using PROCESS MACRO SPSS model 8 was conducted (Hayes, 2013). This model allows the examination of both direct and indirect effects of an independent variable on dependent variable through a mediation to be moderated.

The analysis showed that there was not a conditional mediation effect of SOMC on the relationship between belief superiority and information selection bias SOMC (index moderated mediation = .06, SE = .06, 95% CI [-.053, .203]). Inspection of the mediation effect at each level of mood revealed that SOMC did not mediate the relationship between belief superiority and Information Selection Bias Measure 2, neither in the sad condition (B = .01, SE = .03, 95% CI [-

.035, .091]) nor in the happy condition (B = .07, SE = .07, 95% CI [-.053, .223]). Therefore, Hypothesis 7 was not supported. See Table 4 for the full findings.

Table 4. Regression and Indirect Effect Analysis Predicting Desirability of Reading News Article

Predictor	*B*	SE	t	p	95%CI
	Outcome: SOMC				
BS	-.33	.11	-3.10	.002	-.538, -.120
Mood	.16	.11	1.55	.123	-.045, .373
BS*Mood	-.43	.21	-.204	.043	-.851, -.015
	R^2=.06, F(3,280) = 5.58, p= .001				
	Outcome Variable: Information Selection Bias Measure 2				
BS	.41	.20	2.05	.041	.017, .801
SOMC	-.13	.11	-1.18	.240	-.347, .087
Mood	.84	.19	.27	.78	-.334, .441
BS*Mood	.28	.39	.2.13	.034	.063, 1.617
	R^2=.04, F(4,279) = 2.99, p= .019				
INDIRECT EFFECT					
BS -> SOMC -> ISB in happy cond.	.014	.03			-.035, .091
BS -> SOMC -> ISB in sad cond.	.07	.07			-.053, .223
Index Moderated Mediation	.06	.06			-.053, .203

Study 2 Discussion

The main objective of study 2 was to test if the influence of belief superiority on open-minded cognition and information selection bias varied in terms of affect conditions. Participants were assigned into one of four conditions: high belief superiority with happy mood, high belief superiority with sad mood, low belief superiority with happy mood, or low belief superiority with sad mood. After completing manipulation tasks, participants completed questionnaires measuring open-minded cognition, information selection bias measure 1 (likelihood of following

a social media account, and sharing, and reading social media contents), and information selection bias measure 2 (desirability of reading news article).

Study 2 found that open-minded cognition and information selection bias measure 2 revealed significance in the happy condition but not in the sad condition. Specifically, within the happy mood conditions, high belief superiority caused lower open-minded cognition than low belief superiority. On the other hand, within the sad mood conditions, open-minded cognition did not much differ in the high than low belief superiority. I found a similar pattern of findings using information selection bias as the dependent variable, especially when using measure 2 of the dependent variable. Within the happy mood condition, high belief superiority caused higher desirability of news article that is consistent with prior belief (information selection bias) than low belief superiority. In contrast, such a bias did not differ much in the high and low belief superiority condition.

Aligning with the affect-as-cognitive feedback account, the findings suggest that in happy conditions, individuals tend to respond based on salient or dominant cognitions, while in sad conditions, individuals refrain from relying on these cognitions. Essentially, these results indicate that a happy mood condition functions as a "go" or green signal, encouraging individuals to default to cognitive responses associated with low or high belief superiority. In such instances, individuals with high belief superiority exhibited lower open-minded cognition and higher information selection bias, while individuals with low belief superiority exhibited higher open-minded cognition and lower information selection bias. Conversely, a sad mood acts as a "stop" or red signal, prompting individuals to cease their current cognitive processes. While some

studies propose that negative affect might drive individuals to act in opposition, at times it simply leads them to discontinue their usual behavior (e.g., Huntsinger, 2012).

The hypothesis regarding the interaction effect on information selection bias, was significant when information selection bias measure 2 was used as the dependent variable, but not when measure 1 was used. Corresponding to the patterns observed in open-minded cognition, the interaction effect between belief superiority and affect on information selection bias measure 2 aligns with the theoretical framework of the affect-as-cognitive feedback account. In essence, under happy conditions, individuals with high belief superiority exhibited an increased inclination toward biased information selection, whereas this activity stops in sad conditions.

The absence of a significant interaction effect on information selection bias measure 1 may be attributed to two primary factors. First, it could be linked to participant characteristics influencing their response to the measure. Measure 1 examines participants willingness to follow social media accounts, sharing and reading social media contents related to universal basic income. It is possible that participants in this study were not interested in engaging in such an issue on social media. Consequently, it may weaken the impact of belief superiority manipulation on information selection bias, and resulting in a non-significant interaction effect in study 2. However, I did find a significant effect of belief superiority on the same measure in study 1. One possible explanation to this divergent result is because I employed study participants from an online participant pool in study1. It is plausible that online participants exhibited higher engagement in social media activities related to social political issues than Loyola students. As a result, the impact of belief superiority manipulation may have been more

pronounced among online participants. Their higher motivation could have led to observable differences in information selection bias under varying affective conditions.

The second reason may be associated with nuances in measurement. The process of selecting information from social media and news articles appears to demand different levels of commitment. Reading a news article might be perceived as a relatively low-commitment activity compared to the more involved actions of following, sharing, or delving into the contents of social media accounts. Unlike reading a news article, which is a one-time activity, social media interactions often require ongoing commitments, as individuals routinely encounter the contents each time they access the platform. This could make them less willing to engage with social media accounts or contents, particularly when the topics are uninteresting or lack personal relevance. Consequently, the desirability of reading news article measure might lead to more observable differences in information selection bias under varying affective conditions than the follow, share, and reading social media contents measure.

Moreover, the present research did not find significant mediation effect of open-minded cognition in the relationship between belief superiority and information selection bias at each level of mood conditions. The lack of a significant mediation effect of open-minded cognition in this study could be attributed to the non-significant correlation between open-minded cognition and information selection bias measure 2 ($r(243)= -.107$, $p=.072$). Notably, these variables exhibited a significant correlation in study 1 ($r(243)= -.245$, $p<.001$). To explore potential explanations, I conducted a correlational analysis to examine the relationship between open-minded cognition and information selection bias measure 2 separately for happy and sad conditions. It showed that open-minded cognition was correlated with information selection bias

measure 2 in the happy condition ($r(142)= -.198$, $p= .018$). Conversely, in the sad condition, open-minded cognition did not exhibit a correlation with information selection bias measure 2 ($r(140)= -.013$, $p= .882$). These findings indicate that open-minded cognition may mediate the impact of belief superiority on information selection bias solely in the happy (default) condition, aligning with the findings in study 1. However, possibly, due to the smaller sample sizes in study 2 compared to study 1, the full moderated mediated model lacked the power to detect the mediation effect at each level of mood conditions.

CHAPTER FOUR

GENERAL DISCUSSION

The primary objective of this dissertation was to investigate the influence of belief superiority on situation-specific open-minded cognition and information selection bias, and further investigates the moderating role of affect. Social psychology research suggests that high belief superiority may contribute to political polarization, as individuals in this condition often perceive themselves as more correct than others. This sense of correctness may lead to increased close-mindedness towards alternative viewpoints, aligning with the earned dogmatism hypothesis (Ottati et al., 2015; Ottati et al., 2018). Consequently, individuals with high belief superiority may be more prone to biased information selection, as proposed by the motivational account of information selection (Pyszczynski, & Greenberg, 1987; Tetlock & Levi, 1990).

However, certain situations may prompt individuals with high belief superiority to consider multiple perspectives. For instance, research indicates that people may vary in the expression of belief superiority (Saucier & Webster, 2010), and defensive confidence (Albarracin & Mitchell, 2004). These suggest that there are circumstances where individuals with high belief superiority are willing to entertain alternative viewpoints. The present research seeks to understand conditions under which belief superiority may or may not lead to open-minded cognition and information selection bias by testing the moderating role of affective feelings. While existing literature in emotion and cognition has extensively documented the significant role of affect in shaping cognition, no prior studies have specifically examined its application in the context of belief superiority and cognitive processing.

The literature presents two perspectives on the role of affect in regulating cognition. First, the affect as information account (Clore et al., 2001; Huntsinger, 2014) asserts that the impact of affect on cognition is straightforward, where positive mood signals an unproblematic situation, leading to increased reliance on existing knowledge or dominant cognition. In contrast, negative mood is seen as signalling a problematic situation, suggesting that reliance on existing knowledge or dominant cognition could be maladaptive. However, recent research challenges this assumption, proposing that the relationship between affect and cognition is more flexible. According to the affect-as-cognitive-feedback account, Huntsinger, Isbell, and Clore (2014) argue that positive and negative affect (e.g., happiness, sadness) function as a reward and punishment, respectively, regarding whatever cognition is associated with them, rather than providing specific information.

Drawing on the earned dogmatism hypothesis, Study 1 aimed to investigate the impact of belief superiority on open-minded cognition and information selection bias. Additionally, the study examined whether open-minded cognition mediated the influence of belief superiority on information selection bias. I hypothesized and found that belief superiority decreases SOMC and increases information selection bias. The hypothesis regarding the mediation effect was also supported. Building on the affect-as-cognitive feedback account, Study 2 was conducted to test if affect could regulate the impact of belief superiority on open-minded cognition and information selection bias and further whether the role of affect would be malleable or fixed.

Consistent with the affect-as-cognitive-feedback account, overall findings from study 2 showed that the impact of belief superiority on open-minded cognition and information selection bias depends on mood. Specifically, I found that within the happy mood condition, belief

superiority led to lower open-minded cognition and higher information selection bias, while low belief superiority resulted in higher open-minded cognition and lower information selection bias. Within sad mood conditions, such impacts were absent. These findings suggest that happy mood can increase or decrease open-minded cognition or information selection bias, contingent on the initial cognition priming.

Essentially, these findings imply that people are more likely to exhibit responses consistent with their general tendencies when primed with initial cognition in happy conditions, while sad mood conditions put a stop to these general tendencies. This research extends previous research on the affect-as-cognitive feedback account, by showing that the malleable impact of affect on cognition can also be observed in a general thinking process, beyond other specific thinking processes typically studied within this perspective (e.g., heuristic vs systematic processing, global vs. local focus attention). My research represents an initial step toward a systematic examination of the role of affect in regulating the impact of belief superiority on cognitive style and processing, highlighting the malleability of affect's role in shaping these cognitive dynamics.

Theoretical and Practical Implications

The present research provided evidence in support of the earned dogmatism hypothesis. This hypothesis asserts that individuals might engage in dogmatic thinking style, when they feel entitled to do so. While previous research has examined this hypothesis by investigating the impact of perceived self-expertise on open-minded cognition (Ottati et al., 2015), the present research suggesting that the earned dogmatism hypothesis is also observed in the impact of belief superiority on open-minded cognition and information selection bias. Within this perspective,

individuals with high belief superiority might feel entitled to be dogmatic as they believe their belief is more correct than others. Moreover, the present research offers supporting evidence for the defensive motivational account of information selection. It shows individuals' tendency to choose attitude-consistent information, particularly when the belief is related to one's value, such as political ideology in this context. Importantly, the present research demonstrates that affect (happy, sad) plays an important role in moderating the effect of belief superiority on biased cognitive styles and processing.

A useful direction from this research is to understand if affect would also be able to regulate the impact of earned dogmatism and defensive motivation on related but stronger constructs of perceived superiority, such as moral superiority and religious fundamentalism. While belief superiority might involve perceived superiority of one's belief on broader issues, these two constructs involve moral convictions. Research has indeed shown that moral superiority is associated with the belief that one's morals and values are much better than others (Iyer, Jetten, & Haslam, 2012), and religious fundamentalism is associated with the belief in the absolute truth of one's religion (Saroglou et al., 2022). Interestingly, unlike belief superiority, these two constructs can lead to political participation and willingness to sacrifice oneself to protect the superiority of one's belief or group (Skitka & Bauman, 2008; Saroglou et al., 2022; Yustisia et al., 2020). Exploring the applicability of the affect in regulating such moral and religious superiority will provide deeper theoretical insights and practical implications into the mechanisms underlying bias cognitive styles and processing.

One practical implication of the present research is that interventions targeting affect could be applied to mitigate the potential negative consequences of belief superiority on

cognitions. Specifically, it can increases one's willingness to consider multiple perspectives. Moreover, recognizing the malleability of affect in influencing cognitive processing can inform the development of strategies that are adjusted based on the current level of superiority. While previous studies suggest that affect interventions are "one-size-fits-all", the present research suggests that some interventions might be counterproductive. Instead, interventions need to be carefully tailored to the nuanced dynamics of belief superiority to achieve more effective and nuanced outcomes.

Limitations and Directions for Future Research

Although the present research makes a novel contribution to understanding the relationship between affect and cognition in general thinking processes, such as belief superiority, particularly in the context of a political issue, there are several limitations that should be acknowledged. First, the present research utilized universal basic income as the specific issue in the belief superiority manipulations and outcome variable measures. While the use of a specific issue is useful for enhancing manipulation effectiveness, it may limit the generalizability of the findings. The results might differ when dealing with issues characterized by more crystallized attitudes. This is because participants might strongly hold their beliefs to the extent that responding in ways consistent with their attitudes becomes intuitive, potentially overriding the influence of the current affective condition.

Second, information selection bias was measured using a self-report questionnaire. While this measure yielded the expected results, it would be valuable if behavioral measures could be used to increase the ecological validity of the findings. For example, previous research has used the software tracked exposure, operationalized as article selection that was manifested in

hyperlink clicks and reading time (Knobloch-Westerwick, 2012). Some other studies have used eye-tracking to examine visual attention to given stimuli (Schmuck et al., 2019). Integrating such behavioral measures could provide a more comprehensive and robust understanding of information selection bias.

Third, the present research investigates the role of happy and sad mood. Findings from these research cannot be generalized to other positive and negative affects, such as awe and anger. Research has shown that specific emotions may have same valances, but it contains different cognitions. For example, anger and fear both are negative in valance, but the former involves a higher level of certainty and control, while the later which involves a lower level of certainty and control (Lerner & Keltner, 2000). This underlies some research to shows that anger would make people less and fear would make people more biased in information processing (Young, Tiedens, & Tsai, 2011; de Hoog, Stroebe, & de Wit, 2007). Similarly, previous research has also found that awe may encourage open-mindedness (Silvia et al., 2015). Therefore, the present research specifically focuses on the effects of happiness and sadness, and caution should be exercised when applying these findings to other emotional states with potentially different cognitive implications.

Fourth, the present research falls short of providing a robust explanation for the role of affect in moderating the effect of belief superiority on information selection bias. The lack of a significant mediation effect of open-minded cognition, whether in happy or sad conditions, has been previously discussed, potentially attributed to power limitations. Future studies could enhance the reliability of findings by replicating the study with an increased sample size. Alternatively, it remains plausible that open-minded cognition might not be the explanatory

factor at play. Future research could explore alternative mediators, such as attitude certainty. Existing studies offer preliminary support for this avenue, indicating that thought confidence may serve as a potential mediator elucidating the influence of affect on navigating the impact of salient cognitions (Huntsinger, 2013).

Finally, the present research measures the immediate impact of belief superiority and affect on the outcome variables. However, questions arise regarding the durability of such manipulations over an extended period. In real-world contexts, there is a substantial interest in comprehending the enduring effects of these influences. Future studies could explore the sustained impact of affect in regulating cognition in longitudinal investigations, employing more naturalistic manipulations. For instance, researchers might ascertain the level of belief superiority among social media users and expose them to relevant social media content or posts designed to elicit specific emotions for an extended period. Post-experiment, researchers can gauge the intended outcome variables at various intervals. Alternatively, a diary technique could be employed, prompting participants with high or low belief superiority to maintain emotion journals and discern how these emotions might impact their cognitive processes. This approach would provide a more nuanced understanding of the persistent effects beyond the immediate experimental setting.

Conclusion

In conclusion, I assert that belief superiority indeed leads to biased information processing. This occurs because belief superiority tends to make individuals adopt closed-minded cognitive styles. Notably, the present research posits that affect interventions represent a viable strategy for alleviating these negative impacts. However, it is imperative to acknowledge the nuanced and

adaptive nature of this influence, aligning with the tenets of the affect-as-cognitive feedback account. Despite the valuable insights garnered, this study falls short of comprehensively elucidating the underlying mechanisms governing the flexible impact of affect in navigating the influence of belief superiority on cognitive processing. Future research endeavors should explore this aspect more thoroughly, promising both theoretical refinement and practical insights for interventions targeting belief superiority and its cognitive consequences.

APPENDIX A

PILOT TEST QUESTIONNAIRE

CONSENT TO PARTICIPATE IN RESEARCH

Project Title: Social psychology study
Researcher: Whinda Yustisia
Faculty Sponsor: Victor C. Ottati

Introduction: You are being asked to take part in a research study being conducted by Whinda Yustisia under the supervision of Victor Ottati in the Department of Psychology at Loyola University of Chicago. You are being asked to participate because of you meet following criteria: U.S residents age between 18 and 24 years old, currently enrolled as undergraduate students in the U.S. Approximately 246 individuals will be participating in the study. Please read this page carefully and ask any questions you may have before deciding whether to participate in the study.
Purpose: The purpose of this study is to address the question of students' opinions on a political economic issue. **Procedures:** If you agree to be in the study, you will be asked to: read a summary of information about a political economics issue, and respond to several questions about this issue. This study should take you about 20 minutes.
Risks/Benefits: Confidentiality will be maintained to the degree permitted by the technology used. Your participation in this online survey involves risks similar to a person's everyday use of the Internet. There are no direct benefits to you from participation, but this study may benefit society by providing more information about how people react differently to different situations.
Compensation: If your submission is accepted, you will earn $2.67 that will be paid via Prolific's payment system. Researchers will approve your submission within 24 hours. Payments will only be made when you meet the participants criteria (i.e., 18-24 years old, currently enrolled as undergraduate students, U.S. citizens, currently living in the U.S.), and engage in the study as described. If you chose to end participation before completing the study, you will not be compensated.
Confidentiality: No identifying information will be collected for this study. All data will be associated with a unique identification number (e.g. 101, 102, 103…). The results of this study may be used in reports, presentations, or publications, but data will be presented only in the aggregated form. The data will be stored on a secure, private computer in researchers' computers (Whinda Yustisia and Dr. Victor Ottati) in an encrypted file and only the researchers will have access to it. After the primary research phase has concluded, the anonymous datasets will be stored indefinitely and may be shared on Open Access sources so that other researchers may analyze the data.
Voluntary Participation: Participation in this study is voluntary. If you do not want to be in this study, you do not have to participate. Even if you decide to participate, you are free not to answer any question or to withdraw from participation at any time without penalty. If you wish to exit the survey, you may do so by closing the browser window. If you complete the anonymous survey and then submit it to the researcher, the researcher will be unable to extract

anonymous data from the database should you wish it withdrawn. Your decision to participate or not will have no effect on your relationship with Loyola University Chicago.

Contacts and Questions: If you have questions about this research study, please feel free to contact Whinda Yustisiat at wyustisia@luc.edu or the faculty sponsor Victor C. Ottati, Ph.D. at vottati@luc.edu or 773-508-3024. If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

Statement of Consent: By selecting "I agree" and completing the survey you are agreeing to participate in the research.

- I agree
- No, thank you

[BOTH CONDITIONS]

REMINDER OF PARTICIPANT (WORKER) REQUIREMENT

YOU MUST BE UNDERGRADUATE STUDENTS AND LIVING IN THE U.S.

Prolific was configured to screen people signing up for this study to ensure all participants are undergraduate students and live in the United States of America.

YOU WILL NOT RECEIVE PAYMENT IF (a) your IP location indicates that you are not currently living in the United States, (b) you are using a VPS or VPN that enables people outside the U.S. to bypass Prolific screening, or (c) you are a “bot” (not human).

(Instructions)

INSTRUCTIONS: This research consists of two parts. In the first part, you will be asked to indicate your views on a political issue. In the second part, you will be asked to imagine a situation where you encounter a group of people. After you read a description of the situation, you will be asked to complete some questionnaires. There are no "correct" answers to the questionnaire items. We simply are interested in learning about your thoughts, feelings, and opinions. When answering the questionnaire items, we simply want you to express your opinion.

Please click "Next"

(ALL Participants: Political Belief Measure)

Part 1.
The idea of a guaranteed basic income is gaining more attention. With a guaranteed basic income, the government would give every adult the same fixed, monthly payment regardless of work status, health, or wealth. In this part of the survey, we want you to indicate your view on this issue.

Would you favor or oppose the federal government providing a guaranteed basic income, sometimes called "Universal Basic Income," regardless of work status?

1. I strongly oppose a guaranteed basic income.
2. I somewhat oppose a guaranteed basic income.
3. I somewhat favor a guaranteed basic income.
4. I strongly favor a guaranteed basic income.

Please click "next."

(Belief Superiority Manipulation)

(Introduction)

You indicated that when it comes to the issue of a guaranteed basic income in the U.S., you believe that **[there should be** a guaranteed basic income**/there should not be** a guaranteed basic income**].**

(Belief Superiority Manipulations)

A recent poll conducting by WeMove and YouGov indicates that, among economic experts, **[89.73/10.63%]** reported [there should be a guaranteed basic income/there should not be a guaranteed basic income]. Therefore, your response to this question suggests that your opinion is generally [superior/inferior] to other citizen's viewpoints regarding this issue.

The findings of this poll are supported by previous experimental studies in six European countries, which shows that **[supporting/opposing]** a guaranteed basic income is widely regarded as the **[superior/inferior]** viewpoint because a guaranteed basic income has many **[advantages/disadvantages],** such as:

Note:

List of advantages will be read by following participants:

- *Those who are in high superiority condition and believe that there should be universal basic income*
- *Those who are in low superiority condition and believe that there should not be universal basic income*

List of disadvantages will be read by following participants:

- *Those who are in high superiority condition and believe that there should not be universal basic income*
- *Those who are in low superiority condition and believe that there should be universal basic income*

(Advantages)

1. Mitigates the exploitation of workers
2. Reduces inequality
3. Allows people to follow their passions because they have met their basic needs
4. Reduces school drop-out rates
5. Provides psychological aid to people
6. Can increase average wages
7. Reduces financial problems on pensioners

8. Increases the opportunity to start a business
9. Allows people to meet their basic needs without the need to work
10. Reduces homelessness

(Disadvantages)

1. Gives enormous burden for government finances
2. Not sustainable in the long run
3. Not needed by rich people
4. Causes people lose the ability to work hard
5. Causes incentive to work drop
6. Increase laziness
7. Leads to the necessity to introduce higher tax rates
8. Would cause part-time work almost completely vanish
9. Decreases overall GDP
10. Reduces money for other important projects

Please take a few moments to think about the reasons listed above and select the four most compelling or convincing reasons (check all that apply).

Please click “Next”

(Belief Superiority Manipulation Checks)

Now, we ask you a few additional questions. How much more correct are your beliefs about a guaranteed basic income than other citizen's beliefs about universal basic income?

1 - No more correct than other citizen's viewpoints;
2 - Slightly more correct than other citizen's viewpoints;
3 - Somewhat more correct than other citizen's viewpoints;
4 - Much more correct than other citizen's viewpoints;
5 - Totally correct, mine is the only correct view

Please click "Next"

(SOMC Measure)

Part 2. IMAGINE YOU ENCOUNTER A GROUP OF PEOPLE WHO HAVE OPINIONS REGARDING GUARANTEED BASIC INCOME THAT ARE DIFFERENT THAN YOURS

Imagine you go to a party. When you arrive at the party, you encounter a group of people who are discussing guaranteed basic income. It is obvious that the people have opinions on this issue that are different than yours**.** They provide reasons for their opinions.

Please indicate your disagreement or agreement with the following statements.

In this situation, I would be open to considering these viewpoints.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

In this situation, I would "tune out" messages I disagree with.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I believe it would be a waste of time to pay attention to some of these ideas.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I would try to reserve judgment until I have a chance to hear all of the opinions and reasons provided in this situation.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

In this situation, I would have no patience for arguments I disagree with.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

When thinking about this issue, I would seriously consider all of these opinions.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Please click "Next"

(Information Selection)

Instruction: In this part, we are interested in your responses to brief summaries of news report (three sentences) about Universal Basic Income. We have twelve brief summaries to choose from. Please select 6 out of 12 brief summaries you most interested in reading by clicking the articles' title as listed below. You will be directed to that news article summaries.

1. Replacing welfare payments with a "basic income" for all is alluring, but expensive
2. Universal basic income costs far less than you think
3. The Math is Clear: Universal Basic Income is a Bad Idea
4. Why universal basic income is worth a serious look
5. A Universal Basic Income is a Poor Tool to Fight Poverty
6. A Universal Basic Income Really Could End Poverty Forever
7. Free money makes people lazy: A lesson from Finland
8. Free money wouldn't make people lazy – but it could revolutionize work
9. Hidden risks of Universal Basic Income for Women
10. Universal Basic Income as a Means of Reducing Gendered Poverty
11. Universal Basic Income Negatively Impact Productivity
12. Universal Basic Income Positively Impact Productivity

Please click "Next"

A Universal Basic Income Really Could End Poverty Forever

(Article Summaries)

Note: Participants will be only shown articles they chose in the previous part

Replacing welfare payments with a "basic income" for all is alluring, but expensive
Fans of the basic income make plenty of good arguments. A welfare system riddled with complicated means-testing distorts incentives and is a headache to run. Paine's intellectual case for all citizens to be entitled to a return on the bounties of the earth is compelling. But a basic income is too costly and inefficient to act as a wholesale replacement for welfare. It is feasible only if it is small, and complemented by more targeted anti-poverty measures. Basic income: the clue is in the name.

Please click "Next"

Universal basic income costs far less than you think
While Senator Bellemare's analysis suggests there could be a cost problem, other, more thorough analyses have taken into account the true costs and benefits of basic income programs and rebuked that claim. We caution against overly simplistic cost estimates and call for a more careful, thorough calculation of the true costs and benefits associated with of basic income programs. In fact, Canada can adopt a basic income program without increasing its fiscal debt.

Please click "Next"

The Math is Clear: Universal Basic Income is a Bad Idea
Our country is facing serious and daunting economic challenges, and too many people feel left behind in today's modern capitalist economy. Policymakers should focus spending on targeted benefits and policies that support early-childhood education, skills training, subsidized daycare and housing, and other investments that support families and workers. Evidence shows that's much more likely to produce the desired social and economic outcomes for the American people than universal basic income.

Please click "Next"

Why universal basic income is worth a serious look
Universal Basic Income is like social security for all, and it's taking root within minds around the world and across the entire political spectrum, for a multitude of converging reasons. Rising inequality, decades of stagnant wages, the transformation of lifelong careers into sub-hourly tasks, exponentially advancing technology like robots and deep neural networks increasingly capable of replacing potentially half of all human labour, world-changing events like Brexit and the election of Donald Trump – all of these and more are pointing to the need to start permanently guaranteeing everyone at least some income.

Please click “Next”

A Universal Basic Income is a Poor Tool to Fight Poverty

They generally propose UBI as a *replacement* for the current “welfare state.” That is, they would finance UBI by eliminating all or most programs for people with low or modest incomes. Consider what that would mean. If you take the dollars targeted on people in the bottom fifth or two-fifths of the population and convert them to universal payments to people all the way up the income scale, you’re redistributing income *upward*. That would increase poverty and inequality rather than reduce them

Please click “Next”

Universal Basic Income Suggested to Reduce Poverty

A universal basic income (UBI) has been suggested to reduce poverty in Cornwall, UK.
The scheme, in a report by independent think tank Autonomy, suggests an income of at least £40 a week per child and £60 a week for an adult aged up to 65.
The cost would be met in a number of ways including a tax on high earners and reform of National Insurance.

Please click “Next”

Free money makes people lazy: A lesson from Finland

Distributing free money to the unemployed improves their well-being, but doesn’t appear to have any significant impact on their job prospects. That’s according to the preliminary results of a landmark experiment in Finland, the first country in the world to trial a basic income at a national level.

Please click “Next”

Free money wouldn’t make people lazy – but it could revolutionise work

A UBI is not designed to promote “laziness” or any other type of behaviour, simply to allow individuals to make their own decisions about how they wish to spend their time. The pure idea of a UBI does not hold any inherent position when it comes to paid work, but promises freedom and choice. Depending on the amount paid, it could enable low-paid workers to turn down the worst jobs on offer, or enable time away from paid work to retrain, or start a business.

Please click “Next”

Hidden risks of Universal Basic Income for Women

On the other hand, a basic income might serve to entrench the gendered division of unpaid labour, encouraging those with home-care responsibilities to further withdraw from the labour market. This concern is not limited to basic income: in Sweden, a subsidy to support parents caring for their own child at home faced strong opposition as a "trap for women".

Please click "Next"

Universal Basic Income as a Means of Reducing Gendered Poverty
Women provide most of the care work that today goes unpaid and unrecognized. UBI compensates for that care work, reducing gender inequities and investing in the well-being of the cared-for. Our analysis suggests that a UBI could be a relevant policy in the greater movement for the social, economic, and political equality of women.

Please click "Next"

Universal Basic Income Negatively Impact Productivity
There are also reasons why we might see a reduction in productivity. If some people choose not to work because now they have enough to live on without working and others bargain for higher wages, this will increase business costs, reduce competitiveness and lead to lower business investment, reducing future productivity. There is not good evidence as to which of these is more likely.

Please click "Next"

Universal Basic Income Positively Impact Productivity
One of the arguments for a universal basic income is that it would provide economic security during periods of job search, and therefore increase the extent to which workers do the jobs they really want, rather than taking the first vacancy they find. The argument is that people would be more likely to take the time to do the training to get a better job instead of settling for second best.

Please click "Next"

(All Participants: Final Questionnaire)

Demographic Measures

1. What is your age? [textbox]

2. Please select your gender
[Male, Female, Transgender, Non-Binary, Other]

3. Are you currently an undergraduate student? YES, NO

4. Where would you place yourself on this political spectrum?
[1=Strong liberal, 2, 3, 4, 5, 6, 7, 8, 9=Strong conservative]

5. If you had to choose, where would you place yourself on this political spectrum?
[1=Strong Democrat, 2, 3, 4, 5, 6, 7, 8, 9=Strong Republican]

6. To what extent did you find the feedback regarding your response on a political issue regarding guaranteed basic income at the beginning believable? [1= Not at all Believable, 2, 3, 4, 5, 6, 7= Completely Believable]

7. In at least two sentences, please describe the main task of the experiment: [textbox]

8. Do you have any thoughts or guesses about what this study was about? [Textbox]

THANK YOU FOR YOUR PARTICIPATION

APPENDIX B

STUDY 1 QUESTIONNAIRE

CONSENT TO PARTICIPATE IN RESEARCH

Project Title: *Social psychology study*
Researcher: *Whinda Yustisia*
Faculty Sponsor: *Victor C. Ottati*

Introduction:
You are being asked to take part in a research study being conducted by Whinda Yustisia under the supervision of Victor Ottati in the Department of Psychology at Loyola University of Chicago.
You are being asked to participate because of you meet following criteria: U.S residents age between 18 and 24 years old, currently enrolled as undergraduate students in the U.S. Approximately 246 individuals will be participating in the study. Please read this page carefully and ask any questions you may have before deciding whether to participate in the study.

Purpose:
The purpose of this study is to address the question of students' opinions on a political economic issue.

Procedures:
If you agree to be in the study, you will be asked to:
- Read a summary of information about a political-economic issue
- Respond to several questions about this issue

This study should take you about 12 minutes.

Risks/Benefits:
Confidentiality will be maintained to the degree permitted by the technology used. Your participation in this online survey involves risks similar to a person's everyday use of the Internet. There are no direct benefits to you from participation, but this study may benefit society by providing more information about how people react differently to different situations.

Compensation:
Compensation: If your submission is accepted, you will earn $1.7 that will be paid via Prolific's payment system. Researchers will approve your submission within 24 hours. If you chose to end participation before completing the study or did not engage in the study as described, you will not be compensated.

Confidentiality:
No identifying information will be collected for this study. All data will be associated with a unique identification number (e.g. 101, 102, 103…). The results of this study may be used in reports, presentations, or publications, but data will be presented only in the aggregated form. The data will be stored on a secure, private computer in researchers' computers (Whinda Yustisia and Dr. Victor Ottati) in an encrypted file and only the researchers will have access to it.

After the primary research phase has concluded, the anonymous dataset will be stored indefinitely and may be shared on Open Access sources so that other researchers may analyze the data.

Voluntary Participation: Participation in this study is voluntary. If you do not want to be in this study, you do not have to participate. Even if you decide to participate, you are free not to answer any question or to withdraw from participation at any time without penalty. If you wish to exit the survey, you may do so by closing the browser window. If you complete the anonymous survey and then submit it to the researcher, the researcher will be unable to extract anonymous data from the database should you wish it withdrawn. Your decision to participate or not will have no effect on your relationship with Loyola University Chicago.

Contacts and Questions:
If you have questions about this research study, please feel free to contact Whinda Yustisiat at wyustisia@luc.edu or the faculty sponsor Victor C. Ottati, Ph.D. at vottati@luc.edu or 773-508-3024.
If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

Statement of Consent:

By selecting "I agree" and completing the survey you are agreeing to participate in the research.

[ ] I agree
[ ] No thank you

[BOTH CONDITIONS]

REMINDER OF PARTICIPANT (WORKER) REQUIREMENT
YOU MUST BE UNDERGRADUATE STUDENTS AND LIVING IN THE U.S.

Prolific was configured to screen people signing up for this study to ensure all participants are undergraduate students and live in the United States of America.
YOU WILL NOT RECEIVE PAYMENT IF (a) your IP location indicates that you are not currently living in the United States, (b) you are using a VPS or VPN that enables people outside the U.S. to bypass Prolific screening, or (c) you are a "bot" (not human).

(Instructions)

INSTRUCTIONS: This research consists of three parts. In the first part, you will be asked to indicate your views on political economic issues. In the second part, you will be asked to imagine a situation where you encounter a group of people. After you read a description of the situation, you will be asked to complete a questionnaire. In the third part, you will be asked to select and choose brief summaries of some articles. There are no "correct" answers to the questionnaire items. We simply are interested in learning about your thoughts, feelings, and opinions. When answering the questionnaire items, we simply want you to express your opinion. Please click “Next”

Please click “Next”

(ALL Participants: Political Belief Measure)

PART 1

The idea of a guaranteed basic income is gaining more attention. With a guaranteed basic income, the government would give every adult the same fixed, monthly payment regardless of work status, health, or wealth. In this part of the survey, we want you to indicate your view on this issue.

Would you favor or oppose the federal government providing a guaranteed basic income, sometimes called "Universal Basic Income," regardless of work status, health, or wealth?

1. I strongly oppose a guaranteed basic income.
2. I somewhat oppose a guaranteed basic income.
3. I somewhat favor a guaranteed basic income.
4. I strongly favor a guaranteed basic income.

Please click "next."

(Belief Superiority Manipulation)

(Summary of response on belief superiority measure)

You indicated that when it comes to the issue of guaranteed basic income in the U.S., you believe that [there should be a guaranteed basic income/there should not be a guaranteed basic income]. In the next section, you will learn about three previous research findings that you can use to evaluate your belief on guaranteed basic income.

Please click "Next".

(Belief Superiority Manipulations)
First, it is important to note that, among the hundreds of participants who have completed our previous studies, **[83%/ only 17%]** have reported a similar belief to yours about guaranteed basic income in the U.S. Second, a recent poll within the United States conducted by WeMove and YouGov indicates that among economic experts, **[89.73/ only 10.63%]** agree with your position on guaranteed basic income. Implications of studies performed in Europe paint a similar picture. Specifically, experiments were performed in six European cities. These cities gave randomly selected residents guaranteed basic income for two years, with no strings attached. The results showed that guaranteed basic income **[significantly improved/failed to improve]** participants' overall well-being. Put simply, these studies show that your opinion is widely regarded as **[superior/inferior]** to opposing viewpoints regarding this issue. In contrast, those who disagree with you possess an opinion that is widely considered **[superior/inferior]** to your viewpoint.
(Belief Superiority Manipulation Checks)
Now, we would like to you a few additional questions. Do you believe your beliefs are more correct than other citizen's beliefs about guaranteed basic income?

1 - No more correct than other citizen's viewpoints;
2 - Slightly more correct than other citizen's viewpoints;
3 - Somewhat more correct than other citizen's viewpoints;
4 - Much more correct than other citizen's viewpoints;
5 - Totally correct, mine is the only correct view

Please click "Next"

(SOMC Measure)

PART 2.
IMAGINE YOU ENCOUNTER A GROUP OF PEOPLE WHO HAVE OPINIONS REGARDING GUARANTEED BASIC INCOME THAT ARE DIFFERENT THAN YOURS

Imagine you go to a party. When you arrive at the party, you encounter a group of people who are discussing guaranteed basic income. It is obvious that the people have opinions on this issue that are different than yours**.** They provide reasons for their opinions.

Please indicate your disagreement or agreement with the following statements.

In this situation, I would be open to considering these viewpoints.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

In this situation, I would "tune out" messages I disagree with.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I believe it would be a waste of time to pay attention to some of these ideas.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I would try to reserve judgment until I have a chance to hear all of the opinions and reasons provided in this situation.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

In this situation, I would have no patience for arguments I disagree with.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

When thinking about this issue, I would seriously consider all of these opinions.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Please click "Next"

(Information Selection 1)

PART 3.

Instruction: Assume that you have an opportunity to follow a social media account and to share contents that are posted on the account. We use the term "follow" to generally mean following an account to see more of the content. We use the term "share" to mean posting content to your own profile so that you are sharing the content with others that visit your profile online or simply forwarding or providing other people you know with messages posted by the social media account.

Assume that you have the opportunity to choose to follow and share information from one of two social media accounts, account A or account B. Both of these two accounts post information pertaining to guaranteed basic income. Social media account A tends to post information that opposes guaranteed basic income, sometimes called "Universal Basic Income." Social media account B tends to post information that supports guaranteed basic income. Below are examples of postings from these two social media accounts. Read them carefully, then answer the following questions.

Examples of postings from social media account A:

- "Universal basic income is inefficient, extremely expensive, and a potentially harmful policy that would solve none of the economic challenges."
- "Universal basic income is a terrible idea. It will make makes people lazy."
- "We should reject the idea of universal basic income; it has hidden risks for women."
- "Replacing welfare payments with universal basic income is too expensive. We cannot afford it."

Examples of postings from social media account B:

- "Universal basic income is worth a serious look; it can insulate American families from the changing economy."
- "Universal basic income could revolutionize the way people work; it wouldn't make people lazy."
- "Women should support universal basic income; it is an effective mean to reduce gendered poverty."
- "The idea of basic income should be supported; it costs far less than you think."

If given a choice between FOLLOWING **social media account A or social media account B**, which social media account would you be more likely to follow throughout the next year?

I would be more likely to follow…

Social Media Account A	1	2	3	4	5	6	7	8	9	10	Social Media Account B

If given a choice between SHARING the contents posted by **social media account A or social media account B**, which account's social media contents would you be more likely to share throughout the next year?

I would be more likely to share content from…

Social Media Account A	1	2	3	4	5	6	7	8	9	10	Social Media Account B

If given a choice between READING the contents posted by **social media account A or social media account B**, which account's social media contents would be more enjoyable for you to read?

I would be more likely to enjoy reading contents from…

Social Media Account A	1	2	3	4	5	6	7	8	9	10	Social Media Account B

(Information Selection 2)

Instruction: Now, we would like to know your interest in reading news reports pertaining to universal basic income. We have eight news headlines and its brief summaries. For each article, indicate how desirable it would be for you to read the articles.

1. **"Universal Basic Income is a Poor Tool to Solve Income Inequality"**
   This article opposes universal basic income. The author suggests that universal basic income would result in a highly inefficient allocation of resources. This means that while the economically vulnerable would receive support, so too would middle- to upper-income families (written by Magne Mogstad, published in The Economist on February 23, 2022).

   How desirable for you it would be to read this article

Not at all desirable	1	2	3	4	5	6	7	8	9	Extremely desirable

2. **"Universal Basic Income is The Answer to Inequalities Exposed by Economic Changes"**
   This article supports universal basic income The author argues that universal basic income would address rising income equality, and insulate households from the effects of globalization and technological innovation. This article provides evidence against the universal basic income proposal. (written by John Evans, published in The Economist on July 15, 2022).

   How desirable for you it would be to read this article

Not at all desirable	1	2	3	4	5	6	7	8	9	Extremely desirable

3. **"Why Universal Basic Income Costs Less than You Think"**
   This article supports universal basic income According to the author, most people think universal basic income would be computed by taking the average individual income and multiplying that amount by the total number of individuals in the population. This can provide an amount that seems impossibly expensive. But this is not how much UBI costs. The real cost is just a small fraction of these estimates (written by Tim Worstall, published in Forbes on June 4, 2022).

   How desirable for you it would be to read this article

Not at all desirable	1	2	3	4	5	6	7	8	9	Extremely desirable

4. "**Replacing welfare payments with a "basic income" for all is expensive"**

This article opposes universal basic income. The author suggests that cutting the budget of a wide array of existing programs — such as temporary assistance to needy families, disability insurance – to cover universal basic income would result in a massive loss of existing support to people with disabilities and families with children. This approach would exacerbate the needs of the most vulnerable members of society (written by Robert Doar, published in Forbes on April 4, 2022).

How desirable for you it would be to read this article

Not at all desirable	1	2	3	4	5	6	7	8	9	Extremely desirable

5. **"Universal Basic Income is a Top-up for Underpaid Women"**

This article supports universal basic income. The author argues that universal basic income would protect those in low-paid jobs that women tend to dominate. With a modest and reliable income, workers would not be pushed into the first job that comes along. They could seek a better match with their skills and experiences as well as higher wages and improved conditions (written by Mark Smith, published in New York Times on March 7, 2022).

How desirable for you it would be to read this article

Not at all desirable	1	2	3	4	5	6	7	8	9	Extremely desirable

6. **"The Hidden Risks of Universal Basic Income for Women"**

This article opposes universal basic income. According to the author, universal basic income might serve to entrench the gendered division of unpaid labor, encouraging those with home-care responsibilities to further withdraw from the labor market (written by James Manyika, published in New York Times on May 15, 2022).

How desirable for you it would be to read this article

Not at all desirable	1	2	3	4	5	6	7	8	9	Extremely desirable

(All Participants: Final Questionnaire)

Demographic Measures

1. What is your age? [textbox]

2. Please select your gender
[Male, Female, Transgender, Non-Binary, Other]

3. Are you currently an undergraduate student? YES, NO

4. Where would you place yourself on this political spectrum?
[1=Strong liberal, 2, 3, 4, 5, 6, 7, 8, 9=Strong conservative]

5. If you had to choose, where would you place yourself on this political spectrum?
[1=Strong Democrat, 2, 3, 4, 5, 6, 7, 8, 9=Strong Republican]

6. To what extent did you find the feedback regarding your response on a political issue regarding guaranteed basic income at the beginning believable? [1= Not at all Believable, 2, 3, 4, 5, 6, 7= Completely Believable]

7. In at least two sentences, please describe the main task of the experiment: [textbox]

8. Do you have any thoughts or guesses about what this study was about? [Textbox]

APPENDIX C

STUDY 2 QUESTIONAIRE

CONSENT TO PARTICIPATE IN RESEARCH

Project Title: *Social psychology study*
Researchers: Whinda Yustisia
Faculty Sponsor: Victor Ottati

Introduction:
You are being asked to take part in a research study being conducted by Whinda Yustisia under the supervision of Dr. Victor Ottati in the Department of Psychology at Loyola University of Chicago. You are being asked to participate because we are interested in Loyola students' opinions regarding a political economics issue. Please read this form carefully and ask any questions you may have before deciding whether to participate in the study.

Purpose:
The purpose of this study is to address the question of students' opinions on a political economic issue.

Procedures:
If you agree to be in the study, you will be asked:

- Read a summary of information about a political-economic issue
- Respond to several questions about this issue
- Completing a writing task and listen to an audio

This study should take you about 30 minutes.

Risks/Benefits:
There are no foreseeable risks involved in participating in this research beyond those experienced in everyday life. Confidentiality will be maintained to the degree permitted by the technology used. Your participation in this online survey involves risks similar to a person's everyday use of the Internet. There are no direct benefits to you from participation.

Compensation:
If you complete the study, you will receive two point of course credits via Loyola's SONA system to compensate you for your participation. You may withdraw from the study at any point without loss of class credit or risk of penalty.

Confidentiality:
No identifying information will be collected for this study. All data will be associated with a unique identification number (e.g. 101, 102, 103…). The results of this study may be used in reports, presentations, or publications, but data will be presented only in the aggregated form. The data will be stored on a secure, private computer in researchers' computers (Whinda Yustisia and Dr. Victor Ottati) in an encrypted file and only the researchers will have access to it. After the primary research phase has concluded, the anonymous dataset will be stored

indefinitely and may be shared on Open Access sources so that other researchers may analyze the data.

Voluntary Participation:

Participation in this study is voluntary. If you do not want to be in this study, you do not have to participate. Even if you decide to participate, you are free not to answer any question or to withdraw from participation at any time without penalty. If you wish to exit the survey, you may do so by closing the browser window. If you complete the anonymous survey and then submit it to the researcher, the researcher will be unable to extract anonymous data from the database should you wish it withdrawn. Your decision to participate or not will have no effect on your relationship with Loyola University Chicago.

Contacts and Questions:

If you have questions about this research study, please feel free to contact Whinda Yustisiat at wyustisia@luc.edu or the faculty sponsor Victor C. Ottati, Ph.D. at vottati@luc.edu or 773-508-3024.

If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

Statement of Consent:

Clicking on the "Agree" button below indicates that you have read the information provided above, have had an opportunity to ask questions, and agree to participate in this research study. You may print a copy of this consent form for your records.

(Instructions)

INSTRUCTIONS: This research consists of four parts. In the first part, you will be asked to indicate your views on a political economic issue. In the second part, you will undertake a writing task. In the following part, you will be asked to imagine a situation where you encounter a group of people. After you read a description of the situation, you will be asked to complete a questionnaire. In the final part, you will be asked to select information pertaining to a political economic issue. There are no "correct" answers to the questionnaire items. We simply are interested in learning about your thoughts, feelings, and opinions. When answering the questionnaire items, we simply want you to express your opinion.
Please click “Next”

Please click “Next”

(ALL Participants: Political Belief Measure)

PART 1.
The idea of a guaranteed basic income is gaining more attention. With a guaranteed basic income, the government would give every adult the same fixed, monthly payment regardless of work status, health, or wealth. In this part of the survey, we want you to indicate your view on this issue.

Would you favor or oppose the federal government providing a guaranteed basic income, sometimes called "Universal Basic Income," regardless of work status, health, or wealth?

1. I strongly oppose a guaranteed basic income.
2. I somewhat oppose a guaranteed basic income.
3. I somewhat favor a guaranteed basic income.
4. I strongly favor a guaranteed basic income.

Please click "next."

(Belief Superiority Manipulation)

(Summary of response on belief superiority measure)

You indicated that when it comes to the issue of guaranteed basic income in the U.S., you believe that [there should be a guaranteed basic income/there should not be a guaranteed basic income]. In the next section, you will learn about three previous research findings that you can use to evaluate your belief on guaranteed basic income.

Please click "Next".

(Belief Superiority Manipulations)
We would like to provide you with some important feedback regarding your opinion on guaranteed basic income. Please read the report below carefully. You will be asked several questions related to this report in the next section.

First, it is important to note that, among the hundreds of participants who have completed our previous studies, **[83%/ only 17%]** have reported a similar belief to yours about guaranteed basic income in the U.S. Second, a recent poll within the United States conducted by WeMove and YouGov indicates that among economic experts, **[89.73/ only 10.63%]** agree with your position on guaranteed basic income. Implications of studies performed in Europe paint a similar picture. Specifically, experiments were performed in six European cities. These cities gave randomly selected residents guaranteed basic income for two years, with no strings attached. The results showed that guaranteed basic income **[significantly improved/failed to improve]** participants' overall well-being. Put simply, these studies show that your opinion is widely regarded as **[superior/inferior]** to opposing viewpoints regarding this issue. In contrast, those who disagree with you possess an opinion that is widely considered **[superior/inferior]** to your viewpoint.

Please click “Next”
(Belief Superiority Manipulation Checks)
Now, we would like to you a few additional questions. Do you believe your beliefs are more correct than other citizen’s beliefs about guaranteed basic income?

1 - No more correct than other citizen’s viewpoints;
2 - Slightly more correct than other citizen’s viewpoints;
3 - Somewhat more correct than other citizen’s viewpoints;
4 - Much more correct than other citizen’s viewpoints;
5 - Totally correct, mine is the only correct view

Please click “Next”

(Affect Manipulation)

PART 2.

(Happy Condition)

Now, you will complete the second part of this study. We would like you describe as vividly and in as much detail as possible a recent event that made you feel REALLY HAPPY. Your response will be used to generate the items for a life event inventory. Write your responses in the space provided below. When recalling the recent event, please pay attention to the emotional aspects of the event, how the event made you feel, what aspects of the event made you feel that way, and so forth. This should take about 8 minutes to complete. If recalling this event has led to your feeling uncomfortable, please feel free to discontinue your participation. To encourage your recall of this event, you will listen to a music while writing about the event. Click the play button of the audio below. The music will be played for 8 minutes. Please use the full 8 minutes to write about the event. Indeed, you should feel free to spend more time writing if you wish to do so.

Then, please click "Next Page" button when you are done.

(Sad Condition)

Now, you will complete the second part of this study. We would like you describe as vividly and in as much detail as possible a recent event that made you feel REALLY HAPPY. Your response will be used to generate the items for a life event inventory. Write your responses in the space provided below. When recalling the recent event, please pay attention to the emotional aspects of the event, how the event made you feel, what aspects of the event made you feel that way, and so forth. This should take about 8 minutes to complete. If recalling this event has led to your feeling uncomfortable, please feel free to discontinue your participation. To encourage your recall of this event, you will listen to a music while writing about the event. Click the play button of the audio below. The music will be played for 8 minutes. Please use the full 8 minutes to write about the event. Indeed, you should feel free to spend more time writing if you wish to do so.

Then, please click "Next Page" button when you are done.

(SOMC Measure)

PART 3.
IMAGINE YOU ENCOUNTER A GROUP OF PEOPLE WHO HAVE OPINIONS REGARDING GUARANTEED BASIC INCOME THAT ARE DIFFERENT THAN YOURS

Imagine you go to a party. When you arrive at the party, you encounter a group of people who are discussing guaranteed basic income. It is obvious that the people have opinions on this issue that are different than yours**.** They provide reasons for their opinions.

Please indicate your disagreement or agreement with the following statements.

In this situation, I would be open to considering these viewpoints.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

In this situation, I would "tune out" messages I disagree with.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I believe it would be a waste of time to pay attention to some of these ideas.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

I would try to reserve judgment until I have a chance to hear all of the opinions and reasons provided in this situation.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

In this situation, I would have no patience for arguments I disagree with.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

When thinking about this issue, I would seriously consider all of these opinions.
Strongly Disagree 1 2 3 4 5 6 7 Strongly Agree

Please click "Next"

(Information Selection 1)

PART 4.

Instruction: Assume that you have an opportunity to follow a social media account and to share contents that are posted on the account. We use the term "follow" to generally mean following an account to see more of the content. We use the term "share" to mean posting content to your own profile so that you are sharing the content with others that visit your profile online or simply forwarding or providing other people you know with messages posted by the social media account.

Assume that you have the opportunity to choose to follow and share information from one of two social media accounts, account A or account B. Both of these two accounts post information pertaining to guaranteed basic income. Social media account A tends to post information that opposes guaranteed basic income, sometimes called "Universal Basic Income." Social media account B tends to post information that supports guaranteed basic income. Below are examples of postings from these two social media accounts. Read them carefully, then answer the following questions.

Examples of postings from social media account A:

- "Universal basic income is inefficient, extremely expensive, and a potentially harmful policy that would solve none of the economic challenges."
- "Universal basic income is a terrible idea. It will make makes people lazy."
- "We should reject the idea of universal basic income; it has hidden risks for women."
- "Replacing welfare payments with universal basic income is too expensive. We cannot afford it."

Examples of postings from social media account B:

- "Universal basic income is worth a serious look; it can insulate American families from the changing economy."
- "Universal basic income could revolutionize the way people work; it wouldn't make people lazy."
- "Women should support universal basic income; it is an effective mean to reduce gendered poverty."
- "The idea of basic income should be supported; it costs far less than you think."

If given a choice between FOLLOWING **social media account A or social media account B**, which social media account would you be more likely to follow throughout the next year?

I would be more likely to follow…

Social Media Account A	1	2	3	4	5	6	7	8	9	10	Social Media Account B

If given a choice between SHARING the contents posted by **social media account A or social media account B**, which account's social media contents would you be more likely to share throughout the next year?

I would be more likely to share content from…

Social Media Account A	1	2	3	4	5	6	7	8	9	10	Social Media Account B

If given a choice between READING the contents posted by **social media account A or social media account B**, which account's social media contents would be more enjoyable for you to read?

I would be more likely to enjoy reading contents from…

Social Media Account A	1	2	3	4	5	6	7	8	9	10	Social Media Account B

(Information Selection 2)

Instruction: Now, we would like to know your interest in reading news reports pertaining to universal basic income. We have eight news headlines and its brief summaries. For each article, indicate how desirable it would be for you to read the articles.

7. **"Universal Basic Income is a Poor Tool to Solve Income Inequality"**
   This article opposes universal basic income. The author suggests that universal basic income would result in a highly inefficient allocation of resources. This means that while the economically vulnerable would receive support, so too would middle- to upper-income families (written by Magne Mogstad, published in The Economist on February 23, 2022).

   How desirable for you it would be to read this article

Not at all desirable	1	2	3	4	5	6	7	8	9	Extremely desirable

8. **"Universal Basic Income is The Answer to Inequalities Exposed by Economic Changes"**
   This article supports universal basic income The author argues that universal basic income would address rising income equality, and insulate households from the effects of globalization and technological innovation. This article provides evidence against the universal basic income proposal. (written by John Evans, published in The Economist on July 15, 2022).

   How desirable for you it would be to read this article

Not at all desirable	1	2	3	4	5	6	7	8	9	Extremely desirable

9. **"Why Universal Basic Income Costs Less than You Think"**
   This article supports universal basic income According to the author, most people think universal basic income would be computed by taking the average individual income and multiplying that amount by the total number of individuals in the population. This can provide an amount that seems impossibly expensive. But this is not how much UBI costs. The real cost is just a small fraction of these estimates (written by Tim Worstall, published in Forbes on June 4, 2022).

   How desirable for you it would be to read this article

Not at all desirable	1	2	3	4	5	6	7	8	9	Extremely desirable

10. "**Replacing welfare payments with a "basic income" for all is expensive"**
    This article opposes universal basic income. The author suggests that cutting the budget of a wide array of existing programs — such as temporary assistance to needy families,

disability insurance – to cover universal basic income would result in a massive loss of existing support to people with disabilities and families with children. This approach would exacerbate the needs of the most vulnerable members of society (written by Robert Doar, published in Forbes on April 4, 2022).

How desirable for you it would be to read this article

Not at all desirable	1	2	3	4	5	6	7	8	9	Extremely desirable

(All Participants: Final Questionnaire)

(MOOD MANIPULATION CHECK QUESTIONS)

In previous section, you were asked to write a recent event that made you feel a certain emotion. After describing the event, to what extent you do you feel:

Happy								
Not at all	1	2	3	4	5	6	7	Extremely
Sad								
Not at all	1	2	3	4	5	6	7	Extremely
Awe								
Not at all	1	2	3	4	5	6	7	Extremely
Pride								
Not at all	1	2	3	4	5	6	7	Extremely
Anger								
Not at all	1	2	3	4	5	6	7	Extremely
Fear								
Not at all	1	2	3	4	5	6	7	Extremely
Disgust								
Not at all	1	2	3	4	5	6	7	Extremely

Please describe how you were feeling after listening to the music

Emotionally Unaroused	1	2	3	4	5	6	7	Emotionally Aroused

Demographic Measures

1. What is your age? [textbox]

2. Please select your gender
[Male, Female, Transgender, Non-Binary, Other]

3. Are you currently an undergraduate student? YES, NO

4. Where would you place yourself on this political spectrum?
[1=Strong liberal, 2, 3, 4, 5, 6, 7, 8, 9=Strong conservative]

5. If you had to choose, where would you place yourself on this political spectrum?
[1=Strong Democrat, 2, 3, 4, 5, 6, 7, 8, 9=Strong Republican]

6. To what extent did you find the feedback regarding your response on a political issue regarding guaranteed basic income at the beginning believable? [1= Not at all Believable, 2, 3, 4, 5, 6, 7= Completely Believable]

7. In at least two sentences, please describe the main task of the experiment: [textbox]

8. Do you have any thoughts or guesses about what this study was about? [Textbox]

APPENDIX D

STUDY 1 POWER ANALYSIS

1. Hypothesis 1 Belief superiority -> Open-minded cognition

I ran this analysis using effect size d from a previous study by Ottati et al (2015) on Earned Dogmatism, which examine the influence of perceived expertise on open-minded cognition. I used the same effect size to determine sample size for the influence of belief superiority on open-minded cognition

N required= 110

t tests - Means: Difference between two independent means (two groups)

Analysis:	A priori: Compute required sample size		
Input:	Tail(s)	=	One
	Effect size d	=	.48
	α err prob	=	0.05
	Power (1-β err prob)	=	0.8
	Allocation ratio N2/N1	=	1
Output:	Noncentrality parameter δ	=	2.5171412
	Critical t	=	1.6590851
	Df	=	108
	Sample size group 1	=	55
	Sample size group 2	=	55
	Total sample size	=	110
	Actual power	=	0.8041308

2. Hypothesis 2: Belief superiority -> Information selection

I ran this analysis using effect size d from a previous study by Hall & Raimi (2018) on belief superiority and information selectionI used the same effect size to determine sample size for the influence of belief superiority on open-minded cognition

N required= 156

t tests - Means: Difference between two independent means (two groups)

Analysis:	A priori: Compute required sample size		
Input:	Tail(s)	=	One
	Effect size d	=	0.40
	α err prob	=	0.05
	Power (1-β err prob)	=	0.8
	Allocation ratio N2/N1	=	1

Output:	Noncentrality parameter δ		=	2.4979992
	Critical t	=	1.6548084	
	Df	=	154	
	Sample size group 1		=	78
	Sample size group 2		=	78
	Total sample size		=	156
	Actual power		=	0.8001474

3. Hypothesis 3: Open-minded cognition -> Information Selection

I ran the analysis using the effect size from a previous study, which examined the interaction effect of ideology and open-minded cognition on selective exposure (Crawford & Brandt, 2018). The study did not find a significant interaction effect, but it found a significant main effect of open-minded cognition on selective exposure.

N required= 31

F tests - Linear multiple regression: Fixed model, R^2 increase

Analysis: A priori: Compute required sample size

Input:	Effect size f^2		=	.276
	α err prob		=	0.05
	Power (1-β err prob)		=	.80
	Number of tested predictors		=	1
	Total number of predictors		=	2
Output:	Noncentrality parameter λ		=	8.5560000
	Critical F	=	4.1959718	
	Numerator df		=	1
	Denominator df		=	28
	Total sample size		=	31
	Actual power		=	0.8060662

4. Hypothesis 4: Belief Superiority -> Open Minded Cognition -> Information Selection

I ran the analysis using Schoemann's online program.
Standardized coefficients *a* taken from a study from Ottati's et al study on earned dogmatism (2018).
Standardized coefficients *b* taken from a study from Crawford & Brandt (2018), which found a s significant main effect of open-minded cognition on selective exposure.
Standardized coefficients *c'* taken from a study from Hall & Raimi (2018), which measure the influence of belief superiority on congeniality bias

N required= 246, according to standardized coefficients

INPUT
Model: One Mediator
Objective: Set Power, Vary N
Target Power: 0.8
Minimum N: 50
Maximum N: 400
Sample Size Steps: 4
# of Replications: 1000
Monte Carlo Draws per Rep: 20000
Random Seed: 1234
Confidence Level (%): 95

Input Method: Standardized Coefficients
A (X->M) 0.18
B (M->Y) 0.27
C' (X->Y) 0.20
S.D. X 1.00 M 1.00 Y 1.00

Parameter	N	LL Power	UL
ab	240.00	0.76 0.79	0.82
ab	241.00	0.76 0.79	0.82
ab	242.00	0.76 0.79	0.82
ab	243.00	0.76 0.79	0.82
ab	244.00	0.76 0.80	0.82
ab	245.00	0.77 0.80	0.83
ab	246.00	0.77 0.80	0.83
ab	247.00	0.77 0.80	0.83
ab	248.00	0.77 0.80	0.83

APPENDIX E

STUDY 2 POWER ANALYSIS

1. Hypothesis 7 Belief superiority x Affect-> Open-minded cognition -> Information Selection

Since there is no data that can be used to estimate the effect size, I ran the analysis using three possible effect size: medium, small, and somewhat between small and medium. With 80% power of detecting medium interaction effect (effect size f= .25), I will need 128 participants. With the same power of detecting small effect (effect size f= .10), I will need 787 participants. With the same power of detecting halfway between small and medium effect (effect size f= .18), I will need 245 participants. Given that I predicted a crossover interaction, using halfway between small and medium effect size seems to be reasonable. This kind of interaction has a higher statistical power than ordinal interaction because the effect size is twice as large (Lakens & Caldwell, 2021). Therefore, 245 participants would be an adequate sample size. In anticipation that some participants might not complete the study in good faith, I will add 25% participants, result in a total of 306 participants.

F tests - ANOVA: Fixed effects, special, main effects and interactions

Analysis: A priori: Compute required sample size

Input:	Effect size f	=	.10
	α err prob	=	0.05
	Power (1-β err prob)	=	0.8
	Numerator df	=	1
	Number of groups	=	4
Output:	Noncentrality parameter λ	=	7.8700000
	Critical F	=	3.8533624
	Denominator df	=	783
	Total sample size	=	787
	Actual power	=	0.8000918

F tests - ANOVA: Fixed effects, special, main effects and interactions

Analysis: A priori: Compute required sample size

Input:	Effect size f	=	.25
	α err prob	=	0.05
	Power (1-β err prob)	=	0.8
	Numerator df	=	1
	Number of groups	=	4
Output:	Noncentrality parameter λ	=	8.0000000
	Critical F	=	3.9175498
	Denominator df	=	124
	Total sample size	=	128
	Actual power	=	0.8013621

F tests - ANOVA: Fixed effects, special, main effects and interactions

Analysis: A priori: Compute required sample size

Input:	Effect size f	=	.18
	α err prob	=	0.05
	Power (1-β err prob)	=	0.8
	Numerator df	=	1
	Number of groups	=	4
Output:	Noncentrality parameter λ	=	7.9380000
	Critical F	=	3.8803335
	Denominator df	=	241
	Total sample size	=	245
	Actual power	=	0.8012908

2. Hypothesis 7 Belief superiority x Affect-> Open-minded cognition -> Information Selection

I ran the analysis using Schoemann's online program. Standardized coefficients were taken from study 1. However, the inclusion of interaction term was assumed to reduce the effect of belief superiority on open-minded cognition and information selection for about half of the main effect. The path coefficient c' was taken from the relationship between belief superiority and the social media information selection measure. This number was a little smaller than the relationship between belief superiority and the news selection measure.

According to standardized coefficients, **about 262 participants were required for target power .80.**

INPUT

Model: One Mediator
Objective: Set Power, Vary N
Target Power: 0.8
Minimum N: 50
Maximum N: 300
Sample Size Steps: 4
# of Replications: 1000
Monte Carlo Draws per Rep: 20000
Random Seed: 1234
Confidence Level (%): 95

Input Method: Standardized Coefficients

A (X->M) 0.17
B (M->Y) 0.58
C' (X->Y) 0.19
S.D. X 1.00 M 1.00 Y 1.00

Parameter	N	LL	Power	UL
ab	258.00	0.75	0.79	0.83

Parameter	N	LL	Power	UL
ab	262.00	0.76	0.80	0.84
ab	266.00	0.77	0.81	0.84
ab	270.00	0.77	0.81	0.85
ab	274.00	0.78	0.82	0.86
ab	278.00	0.79	0.83	0.86
ab	282.00	0.79	0.83	0.87
ab	286.00	0.80	0.84	0.87
ab	290.00	0.80	0.85	0.88
ab	294.00	0.81	0.85	0.88
ab	298.00	0.82	0.86	0.89

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